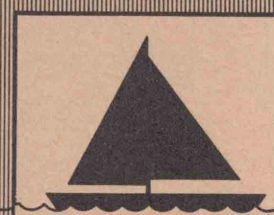
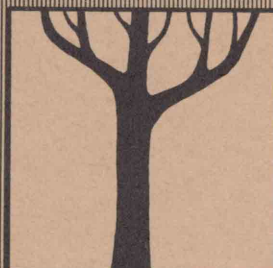
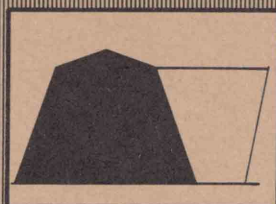


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STATE OF INDIANA DEPARTMENT OF NATURAL RESOURCES

MASTER PLAN
VERSAILLES STATE PARK

Prepared For

State of Indiana
Department of Natural Resources
Engineering Division

Prepared by: Schellie Associates, Inc.
Planning and Design Consultant
Indianapolis, Indiana
October, 1966

■ SCHELLIE ASSOCIATES, INC.

CONSULTANTS: *planning · design · research*

October 20, 1966

Mr. Henry C. Prange
Chief Engineer
Division of Engineering
Department of Natural Resources
614 State Office Building
Indianapolis, Indiana 46209

Dear Mr. Prange:

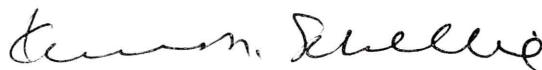
In accordance with our agreement, we are pleased to submit this report and master plan for the development of Versailles State Park.

In addition to providing recreation for the people of Indiana, protection of the outstanding natural, scenic, and historic features in the State Parks is a well recognized objective of the State Park organization. It is these features that make up the character of the park.

The master plan was developed with this objective in mind. The initial phase of the study involved a detailed inventory and analysis of the park's physical resources. This information provided a basis for determining the arrangement, location, and size of the proposed facilities. It is felt, as a result of this process, that the maximum compatibility between the facilities and landscape was achieved in the plan and that the outstanding landscape characteristics can be protected from abuse.

Included in this report are general recommendations for the development of the proposals.

Respectfully submitted,



Kenneth L. Schellie

KLS:gh

3951 NORTH MERIDIAN STREET
INDIANAPOLIS, INDIANA 46208
PHONE: AREA 317 926-5317

MASTER PLAN
VERSAILLES STATE PARK

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MASTER PLAN
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Acknowledgements

43rd Annual Report, Division of State Parks, The Department of Conservation, State of Indiana, 1960-61.

1965-1975 A Pivotal Decade In Indiana Master Plan for Acquisition and Development by Vollmer Associates.

Potzger, John E., Forest Type Control In the Versailles Park Area, Ripley County Indiana, Proc. Ind. Acad. Sci. 1949.

Wallace, Tom, Over the River, The Department of Conservation, State of Indiana, Publication 116, 1932.

While this situation is somewhat less severe in Indiana, it is an indicator of what lies ahead. The recreational lands for the anticipated demand are not available. In terms of use versus land capabilities the increasingly conflicting combination of growing demands for recreational facilities and finite recreational resources will pose more serious problems in the administration and development of park facilities. Foremost of these problems is the overuse of park facilities and the spreading mutilation and destruction of the park's irreplaceable scenic values: those values for which the land was originally purchased and developed. The question must be asked: How can these diminishing and often depreciating resources be continually utilized but protected for FUTURE generations to enjoy? Under the present policy of the State parks as stated in the opening quote, the only plausible answer is that the park facilities be developed within the limits of the physical characteristics of the land. This simply means that a park with the capacity for handling 500 camping sites should not contain 550 camping units. It also means that uses of high concentration and activity will not be deployed in areas of a sensitive nature or of particularly outstanding scenic value.

One of the most significant guidelines for the continued use and protection of the scenic resources is the concept of preservation: Not the popularized, static-hands off concept but a dynamic concept that might be termed "managed preservation". Under "managed preservation" the following objectives are observed:

1. Areas too sensitive for recreational use are protected and managed to continue the sensitive balance of nature's ecosystems.

2. Principles of ecology are recognized and employed to propagate existing systems of vegetation that have particular scenic value, to develop systems of vegetation for intensive use areas, and to either encourage or control successional systems of vegetation in abandoned fields.
3. Natural hazards of fire, disease, and erosion are attacked.
4. Use capacities are determined by physical capabilities of the landscape rather than by popular demand. (It is proposed that popular demand, unless managed, is a destructive force in an environment of outstanding scenic values.)

Since it is within the power of man to drastically change the landscape to his own liking and needs, under the objectives of the State park system it should be and actually is within his power to maintain and preserve the outstanding qualities of the landscape by applying his needs within the physical limits of the landscape's elements. It is not the intent of the park system to permit the will of man to overpower the elements of nature.

The development of this master plan of Versailles State Park has been guided by the above stated principle of managed preservation. The initial phase of the plan involved an inventory of the parks physical features. This phase was followed by an analysis of these features in context with uses recommended by the Divisions of State Parks and Engineering and by the Vollmer Report. Based on this survey and analysis the arrangement, location, and capacity of various uses, as illustrated in the Master Plan and Development Plans, was determined.

Location

Versailles State Park is situated in the southeastern corner of Indiana, thirty miles west of Ohio and the Ohio River and twenty-seven miles north of Kentucky and the Ohio River, as the famous river follows a U shaped course in that area.

The park is centrally located in Ripley County and is about two miles east of the City of Versailles (population 1,158) which is the county seat. It is fifty miles west of the Cincinnati metropolitan area of 1,200,000 people, seventy miles northeast of Louisville, Kentucky, with a metropolitan population of 736,000, and eighty miles southeast of Indianapolis's metropolitan population of 800,000.

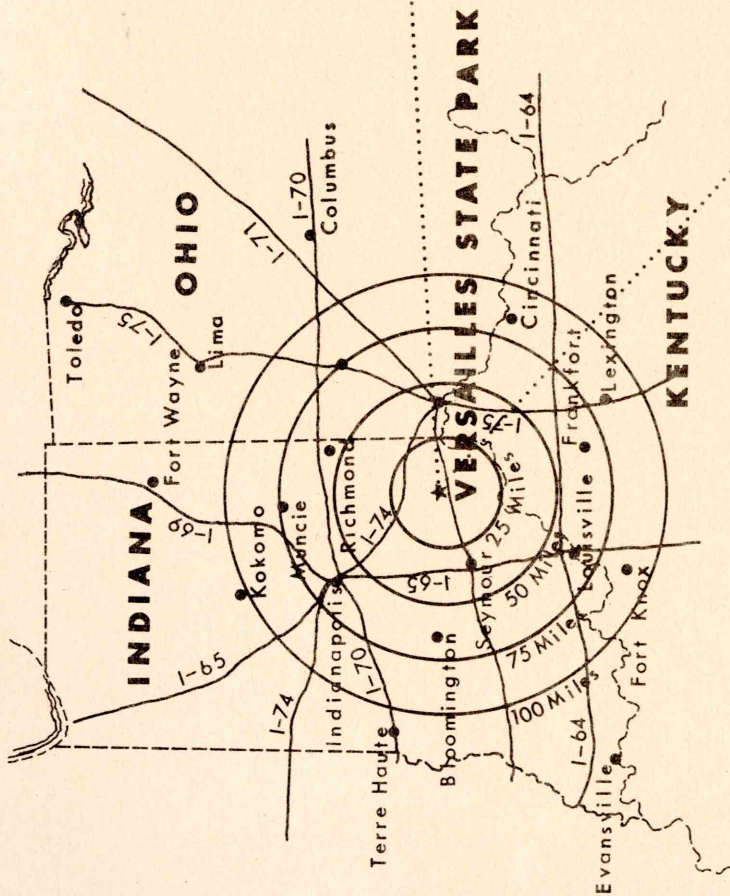
Below is a table indicating the population that surrounds Versailles State Park.

VERSAILLES STATE PARK
POPULATION RADII

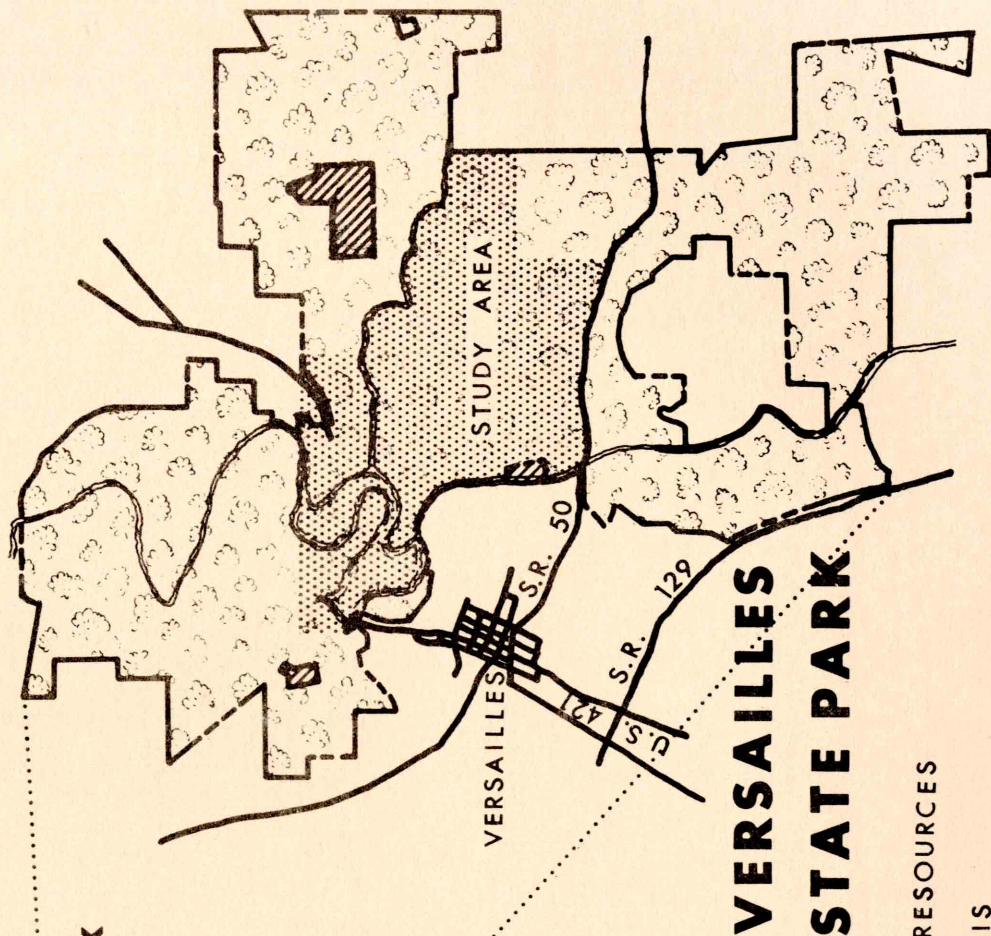
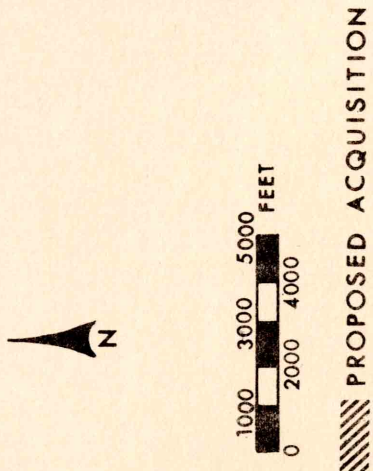
State	0-25	Distance From Park (miles)			Total
		25-50	50-75	75-100	
Indiana	107,570	234,566	616,229	1,086,468	2,044,833
Ohio		1,001,675	812,736	452,840	2,267,251
Kentucky	1,500	236,141	87,570	338,381	663,592
Totals	109,070	1,472,382	1,516,535	1,877,689	4,975,676

Access

Versailles State Park is served by a very complementary system of highways that should continue to contribute to increase use of park facilities. Access to this park is no problem. Interstate Highway 74 passes twenty-two miles north of the park and brings the combined



LOCATION MAP



VERSAILLES STATE PARK

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Prepared By: SCHELLIE ASSOCIATES, INC., INDIANAPOLIS

populations of Indianapolis and Cincinnati of nearly 2,000,000 people within one and one-half hours of the park. Connecting this road to the park is U.S. 421, a high speed two lane highway.

Interstate 65, linking Louisville with Indianapolis, passes thirty-three miles west of the park and is connected to the recreation area by U.S. 50, another high speed route. This combination of roads puts Louisville within two hours of the park. U.S. 50 continues as a two lane highway about ten miles east of the park before becoming a four lane route until six miles southwest of Interstate 74. In addition U.S. 421 which intersects U.S. 50 at Versailles, continues south to Madison, a town of 11,000 people. With Versailles State Park conveniently located near the cross-roads of two major highways and within twenty-five to forty minutes of two interstate routes, greater numbers of our mobile population will visit the park. It can be expected, with reasonable certainty, that these factors alone will contribute to the increasing pressures that will be brought to bear on even expanded park facilities.

History

In the 1930's the National Park Service acquired 5,813 acres of land to develop a Recreational Demonstration Area. A good portion of the road system and facilities that exist today were constructed during that period by young workers of the Civilian Conservation Corp. In 1943 the land was transferred to the Indiana Department of Conservation. It is now the second largest State park in Indiana.

Interest in the creation of the man-made lake in the park developed soon after the State purchase in 1943. However, it wasn't until 1954, after a \$50,000 contribution by local citizens, that the lake project got underway. That effort created the present 230 acre lake for the enjoyment of fishermen, boating enthusiasts (no motor boats are allowed on the lake) and swimmers. There is a little doubt that the lake is one of the most popular features in the park.

Another feature of significant historical interest is an area west of Versailles Lake known as Hassmer Hill. This land was donated to the park by a Mr. Joseph A. Hassmer for the purpose of providing an area for use as a youth camp. The area is now recognized as the Hassmer Hill 4-H Campground and is used by 4-H groups throughout Indiana during the entire summer months.

Many of the existing facilities were constructed during the 1930's, as previously stated, by the CCC's. In 1944 a master plan for the park was drafted by the Department of Conservation. Except for the beach area, the existing arrangement of the park facilities closely resembles this plan.

However, in terms of actual physical development, other than creating the lake, the facilities have not been expanded over the years to meet the rising demands. While those facilities have not been over-run to the extent that they have in other state parks, they are being over-used, and this pressure is beginning to take its toll of the natural features immediately surrounding the facilities.

Projected Needs

The potential needs of the park, as identified in the Vollmer Report, includes considerable expansion of family camping and picnic facilities amounting to about two times the present facilities. Following is a list of facilities recommended by the Vollmer Report and the State Department of Natural Resources.

Facilities:

Visitors Center

Picnic Areas

Family Campgrounds

Group Camps

Expanded Parking

Boat Docks

Trails

Overlooks

Riding Stables

Superintendent's Residence

Swimming

Some of the above facilities are in existence and have been incorporated into the plan verbatim or modified to some degree.

The following capacities have also been recommended. These figures have been accepted as guides but are to be refined based on the physical characteristics studies. They are as follows:

Use Capacities

<u>Use</u>	<u>Persons</u>
Present day use	2,600
Present overnight use	1,000
Present Total Use	3,600
Proposed day use	4,200
Proposed overnight use	3,200
Proposed Total Use	7,400

Study Area

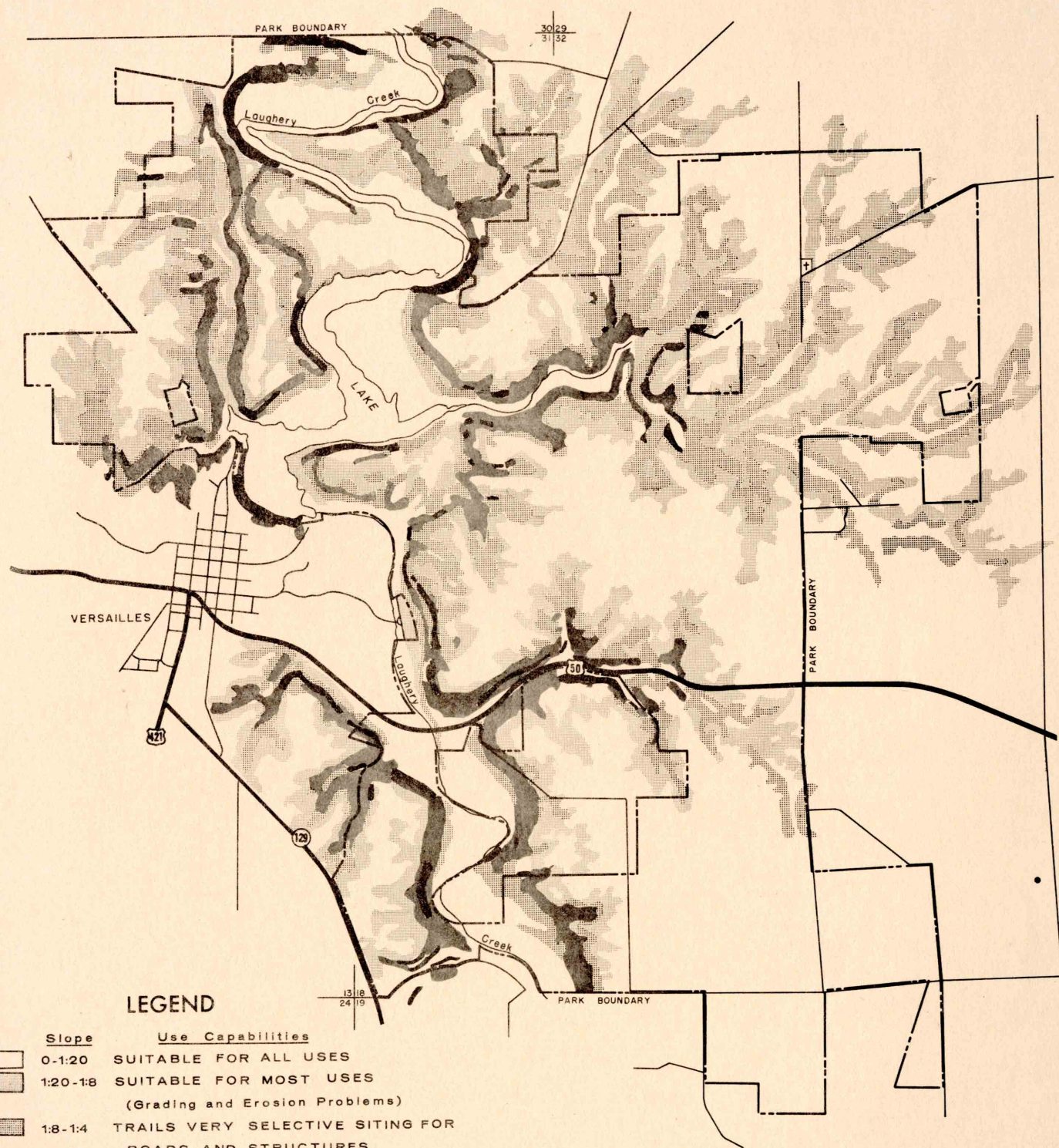
The study area primarily involves the park area north of U. S. Highway 50 and is, to a limited extent only, restricted to the area that is covered by the two foot contour maps. Sheets 1, 2, 4, and 5 of the development plans have two foot contours. Since the Soils Survey was limited to the area with the more detailed topographic coverage the area involved is outlined on the soils survey map. Available U. S. G. S. Maps and extensive field work permitted a comprehensive review of the whole park.

PHYSICAL CHARACTERISTICS

This part of the master plan study involves an inventory of the physical resources to provide a basis for design decisions. The objective is to determine the quality, sensitivity, scenic values, and patterns of these resources.

Topography

The relief in Versailles is very distinct and many outstanding vantage points from which panoramic views of the Laughery Creek Valley and the 230 acre Versailles Lake are noted. The primary land form is, of course, the Laughery Creek Valley which

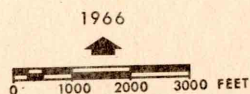


LEGEND

Slope	Use Capabilities
0-1:20	SUITABLE FOR ALL USES
1:20-1:8	SUITABLE FOR MOST USES (Grading and Erosion Problems)
1:8-1:4	TRAILS VERY SELECTIVE SITING FOR ROADS AND STRUCTURES (Severe Erosion Problems)
1:4-2:1	LIMIT TO VERY SELECTIVE USE OF TRAILS
2:1 +	OVERLOOKS

SLOPE ANALYSIS

VERSAILLES STATE PARK



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dissects the park in a north-south manner. This valley is enframed by dramatic, steep, 150 foot, tree covered slopes. The park user confronts this positive and powerful land form as soon as he enters the park and is aware of its presence throughout his stay, whether he is above or in the valley.

Extending eastward from Versailles Lake, in approximately the center of the park, is a secondary drainage that has also cut deeply into the rock formations. This is called the Falling Timber Creek drainage which, while much smaller than Laughery Creek Valley, offers many intimate and dramatic scenic values. Although the walls of this smaller valley are not as high they are equally as difficult to traverse as those in the major north-south valley.

A situation associated with the crests or top edges of this and most valleys is that the valley wall does not terminate abruptly into a flat or gently rolling upland plain. Rather the slope becomes progressively more gentle until the contours blend into the flat land. The significance of this point is that the upper terrain, modified and shaped by the process of erosion, is very sensitive to development for a considerable distance beyond the crest of the valley wall. This is the area that is extremely sensitive to erosion, thereby requiring extreme care in the development of even trails and overlooks.

Basically there are three categories of land forms to be recognized in Versailles State Park. These are: the flat to gently rolling terrain of the valley floor and upland plains; the 50-150 foot walls that border the valley; and the band of steep to gentle rolling terrain that borders the upland plain. These slope categories are related to various uses in the following manner:

<u>Type of Slope</u>	<u>Suitable Uses</u>
Flat to gentle rolling terrain	Suitable for all uses
Valley walls - 50-150 feet	Inaccessible - overlooks
Steep to gentle rolling terrain	Unsuitable for most uses

When these three categories are graphically displayed, clear and concise land form and general land use patterns are projected. This is an initial step in determining the capacities and arrangement of facilities.

The slope categories indicated on the Slope Analysis Map are more detailed than those mentioned above. They are related to the various uses in the following manner:

<u>Slope Capabilities</u>	
<u>Slope</u>	<u>Use</u>
0 - 1:20*	Suitable for all uses
1:20 - 1:8	Suitable for most uses (grading and erosion problems)
1:8 - 1:4	Trails and very selective siting for roads and structures. (severe erosion problems)
1:4 - 2:1	Limit to very selective use of trails
2:1 - +	Inaccessible - Overlooks

* 1:20 means one foot vertical distance to 20 feet horizontal distance or a 5% slope.

It is necessary to point out that the above classifications do not, in themselves, establish the suitability and patterns of uses. Factors related to soils, vegetation, and design concept must also be taken into account.

Soils

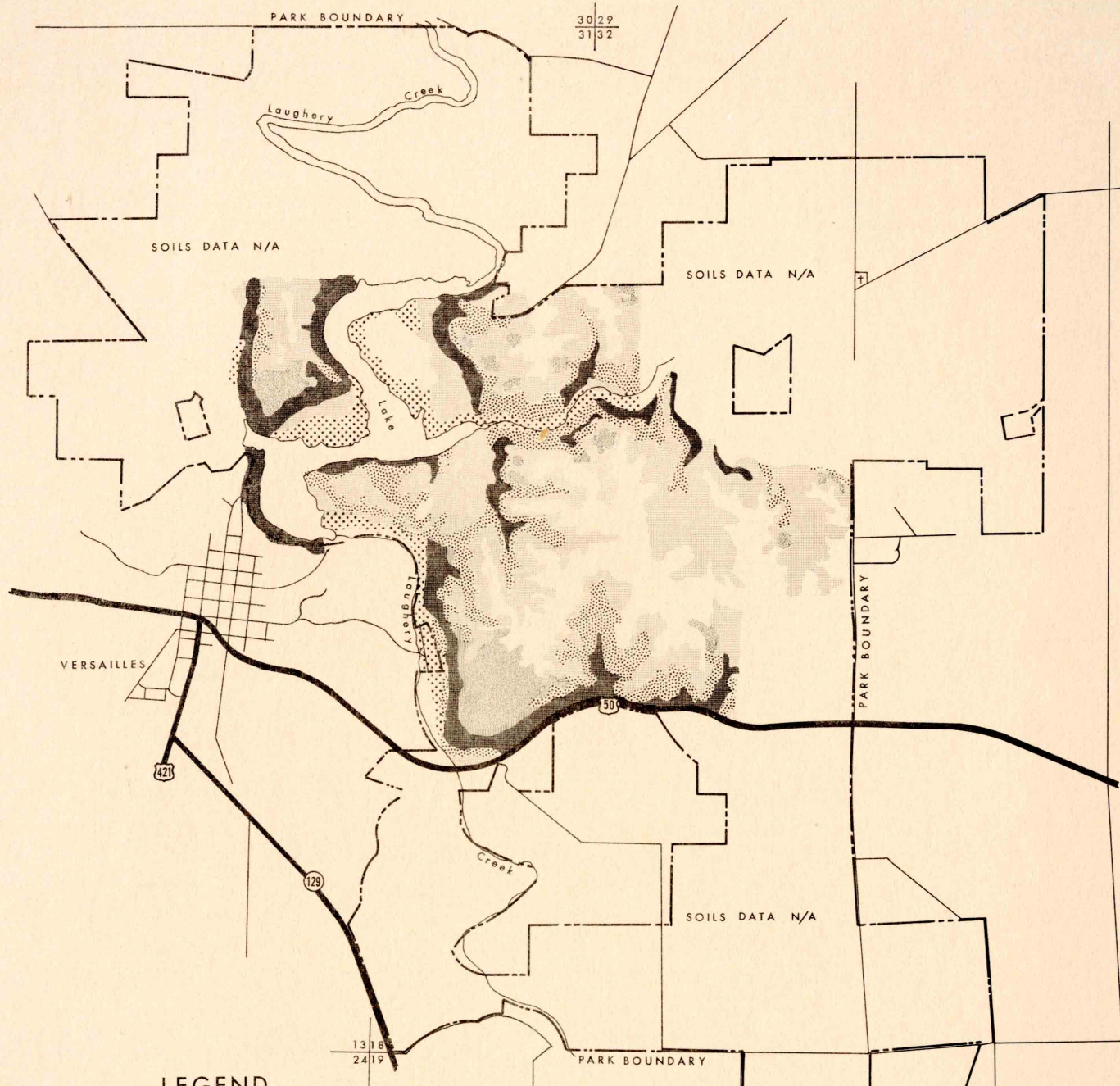
As a part of this study a detail investigation was conducted to determine the characteristics of the soil. In addition, interpretation of the data was made to determine the reaction of these materials to the uses made of them.

The soils in Versailles State Park are primarily glacial tills overlying a bedrock of limestone. The chief soil composition is silt and clay loams often underlain with fragipan. In general the park contains extensive areas of poorly drained, severely leached soil of the composition mentioned above.

Following is a list of seven soil types identified in the park with indication of their pedology, geology, topography, and physiography. (See Soil Survey Map)

Unit 1: Fairmont silty clay loam - strongly sloping to steep and excessively drained. This is a thin layer of moderately developed soil that is located on the steep banks bordering the major drainage courses. Because of the steep topography on which this soil is situated it is not suited for any intensive uses. Vegetative cover must be retained to prevent severe erosion.

Unit 2: Avonburg silt loam - nearly level and imperfectly drained. This is the dominant soil type in the park. It is a poorly drained and heavily leached heterogenous mass of sand, silt, and clay underlain, at depths of around three feet, with a restrictive layer of compacted silt called a fragipan. While drainage is a significant problem and septic systems are completely out of the picture, this soil is better suited to the requirements of the more intensive recreational uses than any other major soil type in the park. In



LEGEND

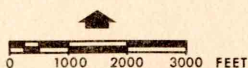
SOIL*	TOPO	USE
1	STEEP	RESERVE
2	LEVEL	GEN. REC.
3	MODERATE-STEEP	GEN. REC.
4	SINKHOLES	RESERVE
5	FLOOD PLAIN	RESERVE
6	STEEP	RESERVE
7	STEEP	RESERVE

* See Text For Description

SOILS SURVEY

VERSAILLES STATE PARK

1966



re-establishing any ground cover on this soil type it is recommended that fifteen pounds per acre of Kentucky 31 fescue and five pounds per acre of ryegrass be planted.

Unit 3: Cincinnati silt loam - nearly level to sloping and well drained. This is a well developed soil consisting of about ten feet of silt and loam. Although this soil is generally well drained, there is a problem of drainage in some areas where a restrictive layer of fragipan is present about four feet below the surface. This soil type is located in the area between the upland flats and upper crest of the valley wall on gently rolling topography that fades into the steep terrain.

Because of drainage this soil is probably better suited to such recreation uses as camping and picnicking than soil Unit 2 but it covers a much smaller area. Thus, it becomes less significant in the total development. However, one element of caution should be expressed. This soil type is situated at the head of the drainage courses. If this factor is not recognized in siting various facilities and the vegetative cover is disturbed, a creeping and spreading erosion can quickly occur. Evidence of this condition is illustrated in some sections of the field trail area: particularly east of the stable where erosion in the gently sloping terrain is creeping into the flat areas and is creating a miniature waste land that resembles strip mine pits. This situation has not occurred from over-use but rather as a result of removing the web of vegetative cover that protected the area. Protective ground cover should be of the same mixture as recommended for soil Unit 2.

Unit 4: Grayford silt loam - nearly level to gently sloping and well drained. This soil is developed from silt and glacial till to depths of fifty inches and is located in a sinkhole topography. It is recommended that areas containing this soil be used as natural areas with the only developed use being foot trails.

Unit 5: Wilbur silt loam - nearly level and moderately well drained. This is an alluvium soil of mixed origin. It is formed by deposition from overflowing streams and covers much of the valley floor in Versailles State Park. The areas in which this soil is located are subject to periodic flooding. It is noted that a wide range of plant materials that provide food and cover for wildlife grow in this soil type. Thus, the area should remain as a wildlife district with the only man oriented use being an occasional foot trail.

Unit 6: Hickory silt loam - steep and excessively drained. This unit consists of well developed soil three to six feet deep. A good portion of this soil is under tree cover. The steepness of the land in these areas has made agricultural use undesirable. This is also true with regard to most recreational uses. It is recommended that the lands covered by this soil unit be utilized as a well managed woodland preserve and that only a few well sited trails of good construction be permitted in the area. Random paths and short cut must be discouraged to prevent any initiation of erosion.

Unit 7: Corydon stony silt loam - strongly sloping to steep and excessively drained. This is a very thin soil developing from the underlain limestone units. The depth of this soil is from four to twenty inches with numerous outcrops of limestone. This soil is situated on "to be looked at" lands. Thin soil and steep topography make utilization of these areas impossible. Recreational development on this soil type must be avoided at all costs.

While each of the soil types present significant problems, soil Units 2 and 3 are most desirable for recreational development. These soils are generally situated on the upland

plains and in gently rolling terrain. A few areas in the valley floor also include soils suitable for development. It is noted that the soils map closely resembles the topographic conditions. This fact can be seen in comparing the Slope Analysis Map with the Soil Survey Map.

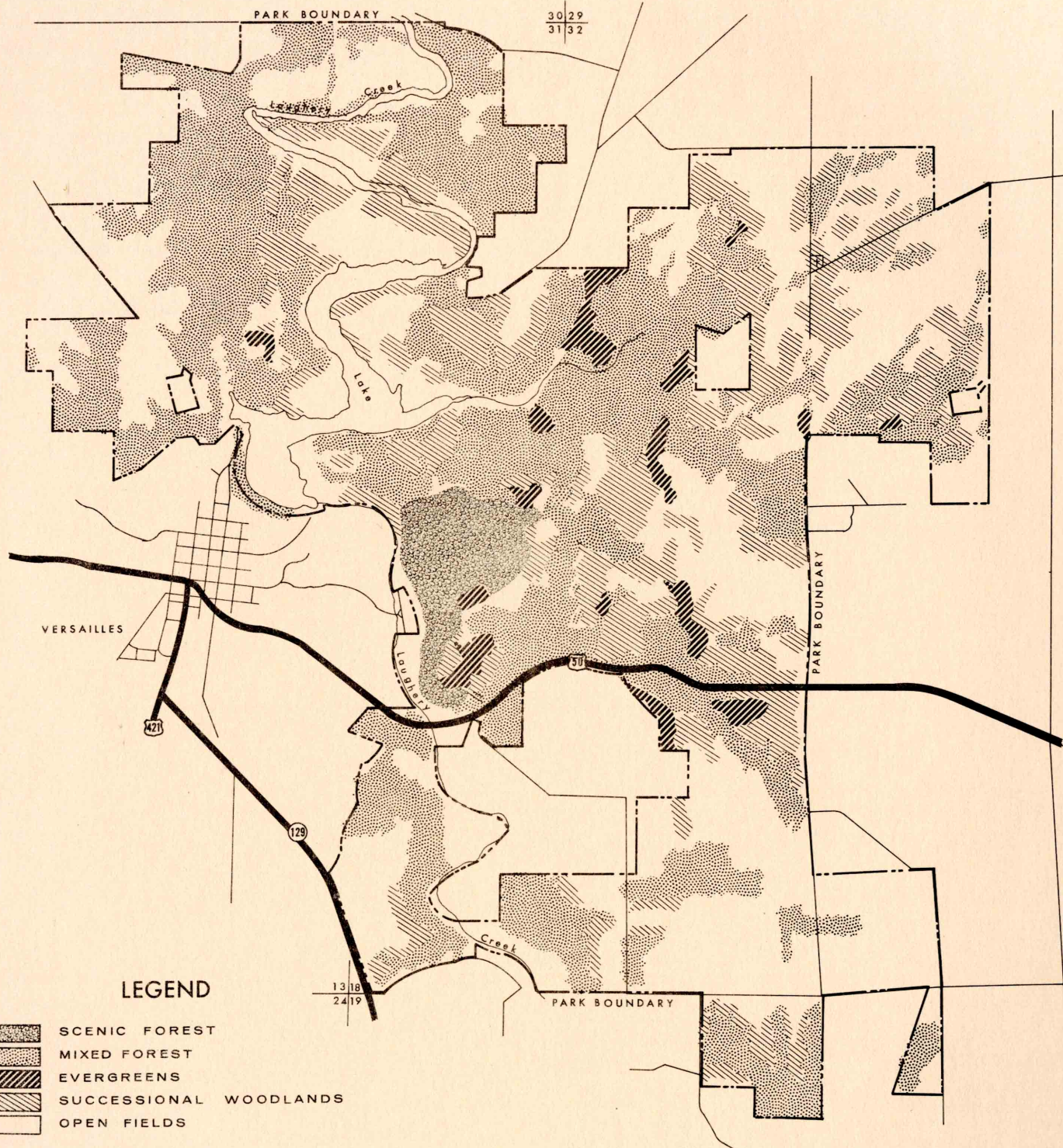
Vegetation

The woodlands in Versailles State Park do not provide the outstanding scenic values that are present in other State Parks, such as McCormick's Creek State Park. However, the variations in soils and topography provide a mixture of woodlands that in total contribute to the attractiveness of this park.

Basically there are four identifiable woodland associations. These associations are identified with the following physiographic conditions: north facing slopes, south facing slopes, flood plains, and compact-poorly drained flats. In the table below the vegetative types of each physiographic condition are identified.

Vegetation Associations

<u>Physiographic Feature</u>	<u>Primary Species</u>
North Facing Slopes	Beech-maple tendencies with white oak and shagbark hickory.
South Facing Slopes	22 species with sugar maple, red oak, bitternut and pignut hickory the primary species.
Flood Plains	Sycamore, elm, and hackberry.
Poorly Drained Flats	Beech, sweet gum, and red maple.



WOODLAND SURVEY

VERSAILLES STATE PARK

1966

0 1000 2000 3000 FEET

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A good portion of the poorly drained flats was previously farmed. What is known as successional woodlands has occurred in these abandoned farm fields. In young open stands of these successional woodlands red maple and sweet gum are prime species but with sugar maple being the chief invader. Red oak, black walnut, and linden have minor representation. Older stands on these flats are dominated by a mixture of beech, red maple, white oak, and hickory.

The Woodland Survey Map illustrates five basic vegetative groupings. They are:

- (1) The scenic forest which when compared to the scenic values of other wooded areas in the park, contain recreational amenities that warrant preservation and management efforts. This area consists primarily of large beech, maple, and hickory species and is west of the stable, south of the campground road and north of the fire tower.
- (2) The mixed forest contains maple, oak, and hickory species. This woodland does not offer any particular outstanding scenic feature because it lacks a dominant species and because it has not developed to a level that might provide an environment of awe and scenic splendor. However, these woodlands are well suited to accommodate such recreational activities as camping: other physical conditions permitting.
- (3) Evergreen groupings are scattered throughout the park in old successional woodlands. This vegetative type is identified because of its dominant form and color. Numerically it is not a dominant species.

- (4) Successional woodlands, as previously noted, is a term given to the natural establishment of trees in abandoned fields. It is an important feature in the development program because, as these woodlands mature they will become very desirable locations for campgrounds and picnic areas. In an expansion program the expansion of certain facilities can be regulated, to a certain degree, by the natural development of these woodlands. In addition, this successional expansion of vegetative growth can be used as illustrative situations in naturalist programs.
- (5) Open fields in this park are those areas that, for the most part, have been continually disturbed. Left alone they will soon develop into a successional woodland. It is not, however, desirable to totally abandon these fields since a variety of natural scenic experiences are desired. By this it is meant that the park should contain, when practical, a balance of open fields (meadows), young or successional woodlands, and full majestic stands of trees.

Water Resources

Probably the most attractive feature of Versailles State Park is Versailles Lake. This 230 acre body of water provides fishing, boating, and swimming to thousands of park users each year. The man-made lake fluctuates very little which contributes to its usefulness.

Laughery Creek, the main source of water for Versailles Lake, provides additional, but different type of fishing and boating experiences. It is navigable up-stream as well as down-stream for the lake. This stream flows throughout the year and to a venturesome boater will provide scenes of special attraction as 150 foot, tree covered bluffs rise from the shore of the stream in many areas.

Falling Timber Creek is a secondary drainage course that enters Versailles Lake from the east. It is an intermittent stream now but was certainly an active one in the past: 50-150 foot valley walls are evidence of that activity.

A third stream, Cedar Creek flows into the west side of the lake. This stream is also intermittent but has been active in shaping the steep bluffs in that area.

Water pollution does not appear to be a problem. Constant State Board of Health inspections of the beach assure this point. There is, however, a significant amount of sediment coming into the lake. This sediment comes from the upper reaches of the drainage courses and in the case of Laughery Creek the Division of State Parks can do little about it.

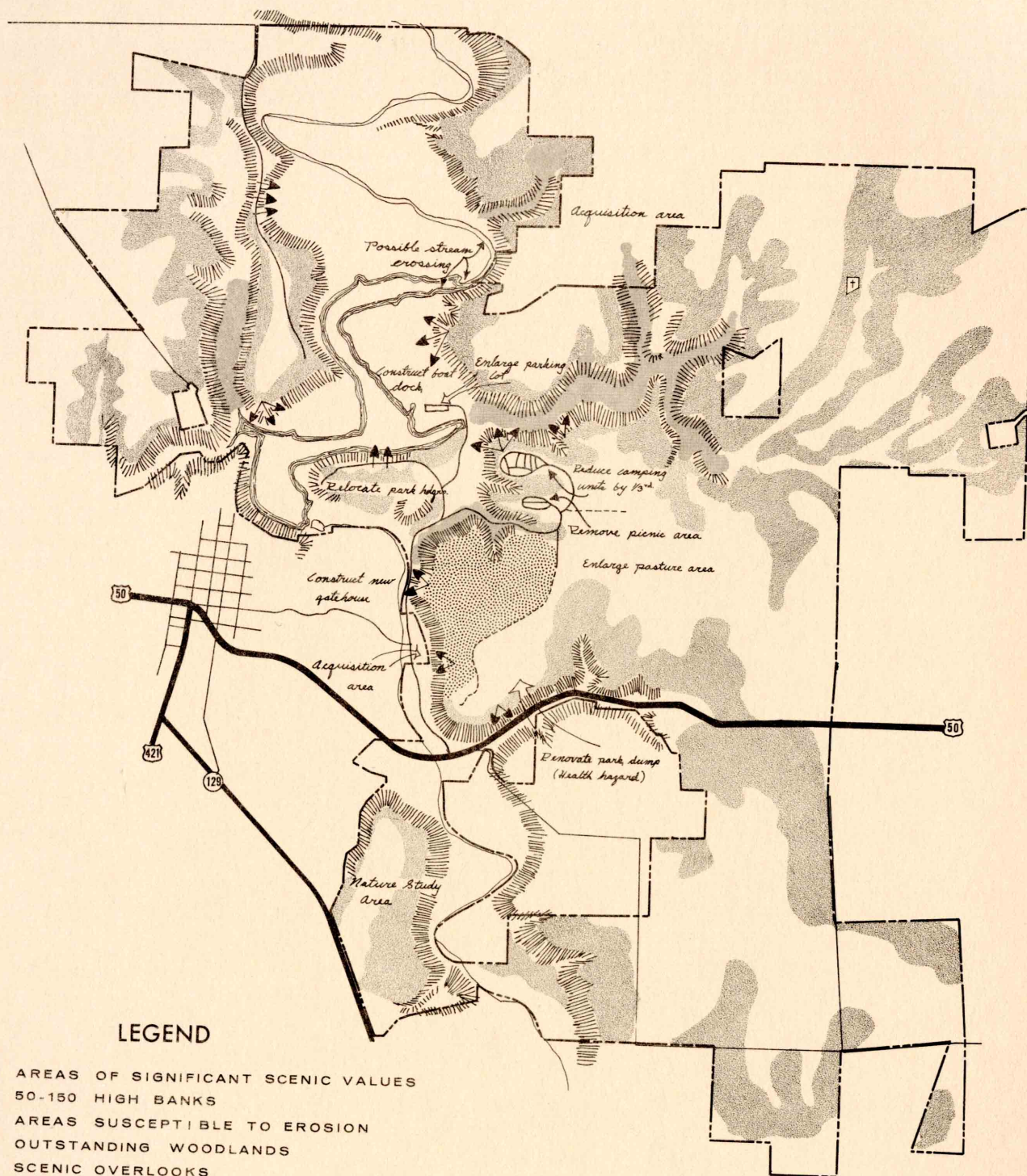
However, considerable sediment is pouring into the lake from Falling Timber Creek. Since this stream flows for a considerable length through the park it is within the power of the Parks Division to reduce this problem. It is evident as a result of the field investigation that much of the sediment is coming from within the park; particularly from the field trail area where the woodlands have been trimmed to the edges of the slopes. Beaten and random horse and foot trails also add to the problem.

The potable water supply for the park is purchased from the City of Versailles. It is expected that the city will continue to be the source of water for the park user.

Analysis (see Landscape Analysis Map)

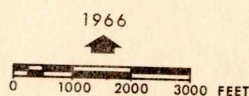
The Landscape Analysis Map is a graphic composite of the physical features surveys.

During the field investigation specific attention was given to the dominant forms and



LANDSCAPE ANALYSIS

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features of the park landscape for the purpose of displaying them on this map. In addition, this field work clarified and augmented much of the before mentioned data that was gathered from various sources.

As with the previous surveys this particular study is not influenced or related to the proposed facilities. It is simply an illustration of the dominant conditions that are present in the park.

The significance of the map is that the design concept and the ultimate proposals will emerge from within the framework of the illustrated patterns. In other words this map sets up the boundaries in which the various type of recreational activity can occur.

Five outstanding physical conditions are indicated. Each condition was analyzed in the field to determine its significance in the total park landscape. In addition, specific conditions are noted or recommended.

A description of each condition follows.

Areas of significant scenic values - These areas were determined by value judgments based on the field work. The areas are primarily located in drainage courses and are included in this classification because they contain a scenic combination of bluffs, steep slopes, rock outcroppings, and vegetation that will attract the hikers. In addition, these areas are accessible but are not to be developed for uses other than trails.

50-150 high banks - This classification is self-explanatory. These are inaccessible areas that provide a dominant and scenic land form throughout the park. They will dictate the circulation system more than any other feature.

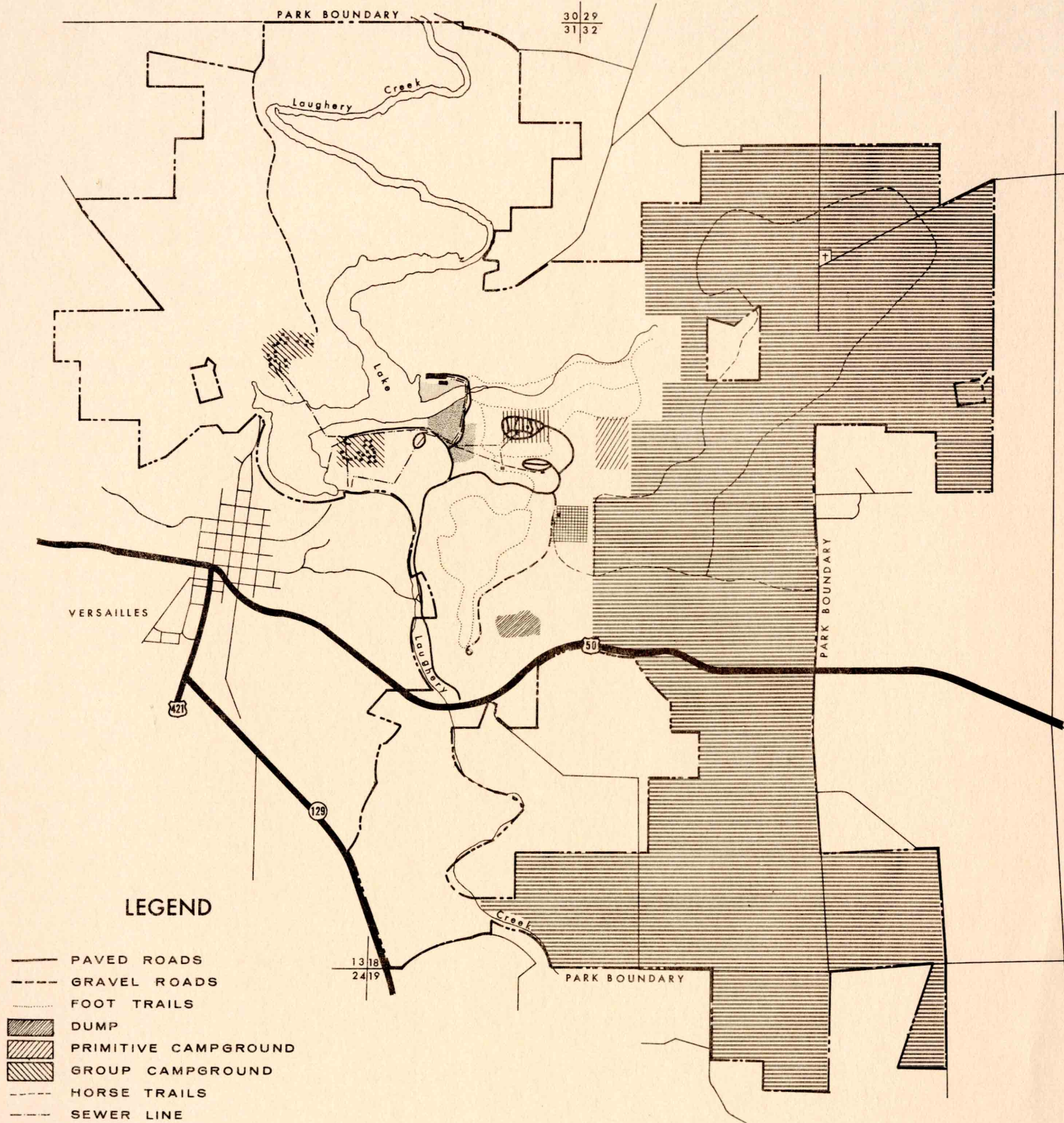
Areas susceptible to erosion - This pattern is derived from an overlay of the Slope and Soils Survey Map. In addition, patterns of erosion were noted in these areas during the field investigation. Generally speaking, recreational facilities should be kept out of these areas because of existing and potential erosion problems.

Outstanding woodlands - This is an area, the only area, that contains a large mature tract of trees that can inspire the nature enthusiast. Stands of majestic beech, oak, and maple are noted. Since this is the only outstanding stand of trees in the park (with respect to visual qualities) all forms of recreational activity must be kept out of the area, including horse trails. Foot trails are the exception.

Scenic overlooks - Each of the overlooks were identified in the field. They were noted because their elevated position and their particular relationship to the surrounding landscape provide unmatched panoramic views of the lake and the opposite bluffs. Selective clearing will be required to develop each overlook's maximum potential.

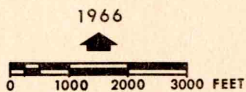
Existing Facilities

This section pertains to the conditions of the recreational facilities that now exist in Versailles State Park. The general appearance of the park is good. The landscape along the entrance road and for that matter along most of the paved roadway is good. There



EXISTING FACILITIES

VERSAILLES STATE PARK



was no litter noted during the field investigation which took place during the height of the season, and for the most part the roadside areas were void of over-use and mis-use. One point of irritation that was noted upon entrance into the park were the "do not" signs. It is suggested that these be placed beyond the gatehouse. Removal of these signs would compliment the scenic park entrance.

Following is a description of each park facility.

Roads

Roads leading into the park and to its major activity areas are in top condition. They are all paved. The roads have been ideally fitted to the terrain and are designed to safely accommodate park traffic. With some minor exceptions it is unlikely that the alignment of existing roads will be changed.

Gatehouse

The existing structure is only a temporary arrangement. Plans for relocating a gatehouse of standard design have been drafted.

Superintendent's Residence

The present facility is outdated, inadequate, and too close to the main stream of park activity. A new site and house design should be selected.

Service Area

The existing service area is ideally located but is in a state of disrepair. There is a large enough level area to accommodate any anticipated service activity plus the sights and sounds of the site are well screened from the rest of the park. It is recommended that

the location of the present service area remain the same. It is also recommended that in reconstructing a modern service complex the standard plan for the park system be modified. This modification involves removing the park office from this complex. The reason for this is that the site is too far from the main road into the park.

Park Office

The present park office is housed in a cabin that is a part of Group Camp Number 4, located immediately east and above the dam. This location is inconvenient to park users because: 1) They have to enter another user's area in which they have no business other than visiting the park office. 2) They have to go out of their way to find it.

Group Camp Number 4

This camp is designed to accommodate up to 180 people. The complex is composed of nineteen buildings including a mess hall, cabins, and meeting lodges. It was constructed by the C.C.C. work camp of native lumber and stone and fits very well into the landscape of the park. Both the grounds and buildings are well maintained and are in a good condition. Because of its condition and isolated location this site should continue to be used as a group camp.

Hassmer Hill 4-H Group Camp

This group camp is situated on land donated to the park for that specific purpose. It is used throughout the summer by 4-H groups from the states of Indiana, Kentucky and Ohio.

The area is located on the west side of Versailles Lake and northwest of Group Camp Number 4. The primary problem with this site is access. It can be reached either by boat across 1200 feet of water or by vehicle over thirteen miles of non-park roads.

The camp consists of twenty-one buildings including cabins, mess hall, dispensary, and meeting lodges. Also included in the complex are a swimming pool and amphitheater.

Heavy use is beginning to take its toll. A long list of repairs can be prepared for the area. This includes water, sewer, and electric facilities. Because this site is dedicated to the activities of the young it is recommended that a long range reconstruction program be initiated that will include the construction of a second group camp north of the present complex. Since very adequate swimming facilities are available on the opposite shores of the lake, it is also recommended that the swimming pool be removed rather than go into additional expenditure for major repairs.

Individual Unit Campgrounds

The park now has 180 identified camping units in an area southeast of the beach. The campground is situated on a ridge, surrounded on three sides by 50-150 foot steep slopes. It encompasses a total area of about fourteen acres which gives a density of thirteen camping units per acre. Under normal conditions this is overcrowding. Taking into account the sensitivity of the surrounding land and the proximity of 900 people to these lands the present condition is a mis-use of the land.

The soil in the campground is severely compacted because vehicular movement is not restricted. Foot paths trail off at random, up and down steep slopes, where foot traffic should not be allowed. The nearby ravines, that contain evidence of nature as it might have existed before the area was settled, are being mutilated.

The conditions of the camping facilities also reflect heavy over-use. There are only eighteen grills in the campground. The toilet and washing facilities do not serve the needs of this crowd and require repairs.

It is strongly recommended that the capacity of this campground be reduced to 100 or less units and that the area be set aside for a period of natural and managed recuperation.

In addition to this camping facility an area east of the above campground has recently been opened for "primitive" camping. This means there is even less control over the camper with respect to vehicular traffic than in the above mentioned campgrounds. The area is a combination of open fields and successional woodland. The only facilities in the campground are a single vault toilet and some roads, some of which have been scratched in with a grader and some of which are the results of random traffic patterns. The area under discussion is designated for expansion of individual camping units.

Picnic Area

The one officially designated picnic area is located on a narrow 400 foot wide ridge immediately south of the 180 unit campground. It includes a substantial and attractive shelter building built in the 1930's and a more recent toilet building. Vandals have taken their toll on the shelter building. Major repairs are required on the fireplace and interior in general. In addition to these picnic features, the usual picnicking apparatus such as tables and grills are totally lacking; particularly in relation to the number of existing parking stalls.

This is another area that has been subjected to over-use. The fact that the parking lot for this area occupies about half the usable land area gives an indication of the use pressure placed on the natural elements.

It is felt that since the general area in which this picnic ground is located has been designated for campground expansion the picnic use should be relocated.

Another area that has emerged as a picnic ground is located along the south shore of the lake, opposite the beach area. There are a few tables, no grills, no water, no toilet facilities and no parking areas located in the area. The area is, however, heavily used and as can be expected is beginning to show signs of deterioration. The picnic use should not be permitted to remain in this area.

Beach

A very excellent beach is available to patrons of this park. There is 1200 feet of beach front. According to available figures it has never been filled to capacity. In addition to the beach, a very large lawn area between the beach and the parking lot is available for sunning.

The bathhouse is more than adequate to serve present needs. However, if the popularity of the park continues to increase, it is likely that this facility will have to be expanded.

The immediate problem of the beach is parking. There is not enough. Proposals for about a 400 car parking lot are being considered.

Another factor associated with the water and indirectly with the existing beach is the boat ramp. Since gas powered motors are prohibited the use of this boat facility has been somewhat limited, as has the park operated boating concession. However, as attendance increases interest in various types of boating activities (fishing, sailing, canoeing, etc.) will increase. With this factor in mind it is felt that the boat ramp and beach parking will be a conflicting use. Thus, it is recommended that boat facilities such as docks and ramps not only be expanded but they should be relocated to avoid conflict with the beach area.

Water

Present water needs are adequately served by a system connected to the City of Versailles water supply. Expansion of existing park facilities will require a considerable increase in water requirements. No problem is anticipated in acquiring the additional needs.

The present water system will require considerable renovation. Consequently, it is recommended that a new system be constructed throughout the park including the Hassmer Hill Area which is now being served by a temporary plastic line.

Sewage

At the present time two outdated sewage disposal systems serve the park. A 5000 GPD Imhoff plant serves the Hassmer Hill area and a 22,500 GPD Imhoff plant handles the sewage from the campgrounds, picnic area, and beach on the east side of the lake. Both the sewage treatment plants and sewage system will have to be replaced.

Sanitary Land Fill

The most serious condition in the park is the sanitary land fill located south of the stable and east of the fire tower. Waste material from the park has been dumped haphazardly over acres of ground with no obvious effort to cover the material. In addition, manure from the horse stables is dumped in the area. This whole condition presents a serious health problem and should not be allowed to continue. Every effort must be made to cover up the acres of waste piles and to establish a LAND FILL operation.

Fire Tower

This feature now sits at the edge of a trail immediately east and above the park entrance. Because of safety problems the stairs leading to the top of the tower has been removed. It is recommended that unless it is the desire of the park to man this tower it should be torn down.

Stable

A recently constructed barn now houses the horses south of the campground area. The barn is removed from other areas of activity so there are no problems of odor. It is felt that the present location of the stable is satisfactory because it is removed from intensive use areas and because there is land available for pasturing horses.

Trails

The trail system in this park is a little meager and they are not adequately marked. In addition, where the trail skirts the upper crest of the high bluffs, no provisions are made to provide the hiker an opportunity to see any of the many panoramic views that are

screened by dense vegetation. Most of the foot trails are in good condition. The exception is near areas of high concentration of people where the paths widen and spread over steep banks in a random pattern.

One other problem is noted. Horse riders use the foot trail in the area west of the stable as a bridle path. Horses should not be allowed in this particular area, because it contains some of the most scenic woodlands in the park.

For the most part existing horse trails are located in the field trail area. Additional trails are needed and can be located in the eastern section of the park.

Field Trail Area

The field trail area contains approximately 3000 acres of park land, two-thirds of which is located north of U.S. Highway 50. This figure represents more than half of the total park area. In addition to the area requirements, this use requires the following facilities and services: a kennel, shelter, stable, basic utilities, feed patches located throughout the field trail area, and mowing and brush clearing. The existing facilities require various repairs, particularly the kennel which should be replaced.

The extensive area requirements of this use has been established by the National Field Trail Association. In order to compete on a national level three-one hour courses must be laid out. Each course should have a dimension of about one mile by two miles. The reasoning behind these standards is that each course will be used every third hour during the day's event, thereby permitting or encouraging game birds to move back into the area.

Another factor that is of prime importance is that large open fields be maintained to permit judges and spectators to watch the movements of the dogs. This involves annual mowing and clearing of brush along the field edges. At the present time neglect has permitted woody plants to become established in these open fields which poses some problems to the participants.

While the field trail events cannot be classified as an intensive use, as is camping, the activities associated with this use have taken a considerable toll of the landscape. The most serious problem is associated with the practice of mowing and clearing the fields. In many areas these open fields have been pushed too close to the sensitive terrain along the drainage courses. There is ample evidence of the results of this activity in the form of severe gully erosion. One area located east of the stable gives the impression of a strip mined area in miniature. This condition alone contributes quite extensively to the siltation problem of Versailles Lake and needs to be corrected.

Another problem associated with this activity is that the competitions are held in the spring as well as in the fall. This is not a problem of conflicting use but one of devastating use. The soils of the area are identified as Unit 2 Avonburg silt loam. (See description of soils) In the spring this soil is water-logged and any traffic, particularly horse traffic has a destructive effect as it either becomes bogged down or tears up the fields. In the field investigation it was noted that the fields were pocked with deep horse foot prints and that the herbacious vegetation was significantly retarded; particularly where horse traffic was concentrated. The use of this area during the wet season contributes significantly to erosion and siltation. For the sake of responsible field management it is recommended that the field trails not be held during the wet season.

DEVELOPMENT CONCEPT

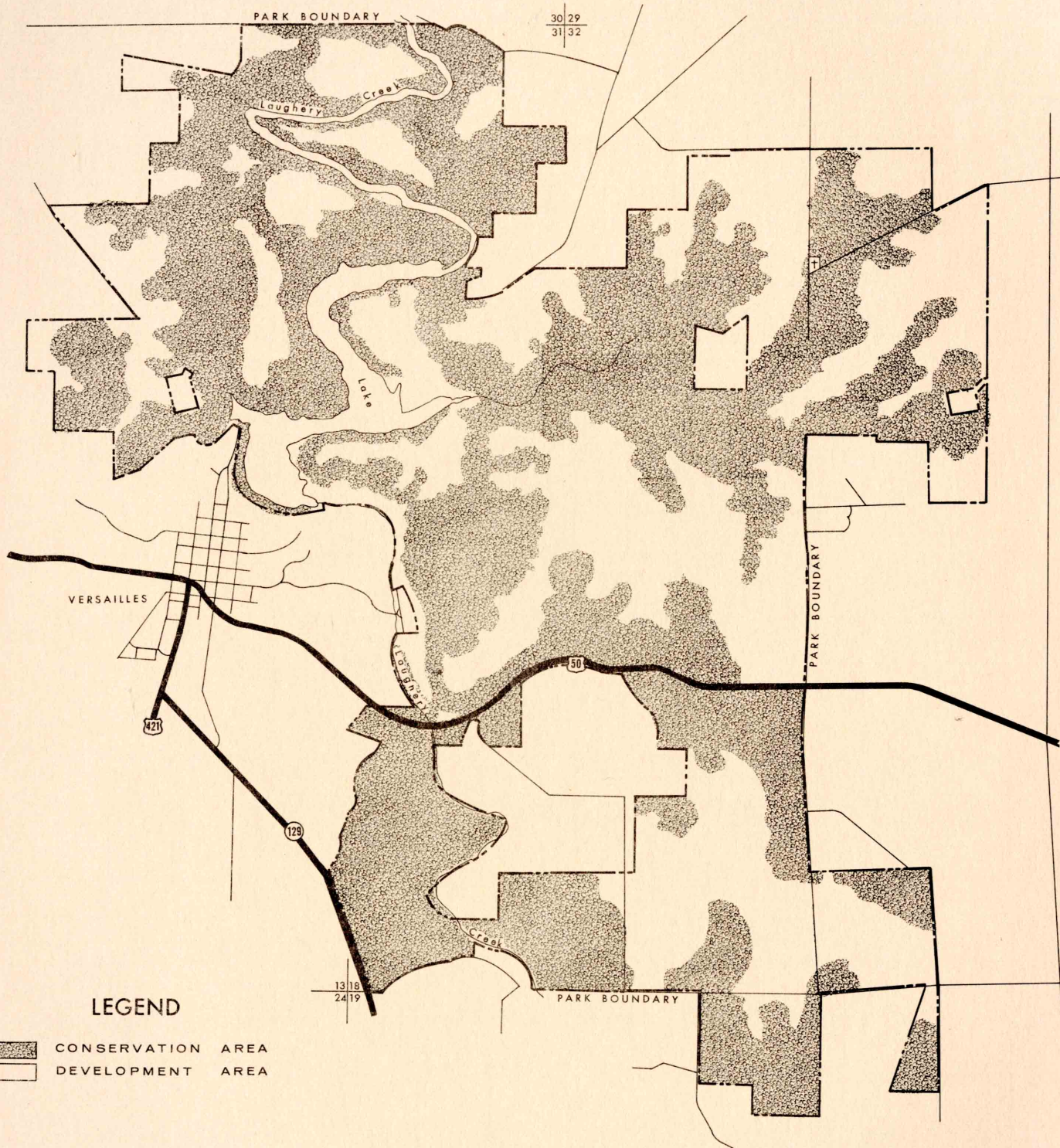
In the development of a park master plan one guideline stands out above all others: the scenic, historic, or scientific values for which the area was originally purchased, must be protected. Development should not be permitted to overwhelm those values that have made the park a place of natural distinction--a place of natural beauty. Certainly it is not the development that attracts the park users but rather the setting in which the development is placed. For this reason development and demand must be subordinate to the irreplaceable landscape elements and environment.

Therefore, the following guidelines are presented for the development of this master plan:

1. Protect the natural features.
2. Select appropriate facilities.
3. Adapt the facilities to the site conditions.
4. Let the physical characteristic rather than popular demand determine the capacity of each facility.
5. Arrange a harmonious relationship between the various facilities.
6. Develop an efficient and unobtrusive circulation system.

General Land Use

This plan is an assimilation of all the survey data and reflects, in abstract patterns, lands to be held as conservation areas and lands to be developed. The distinction between the two areas identified on the map is that in the conservation area lands are too sensitive for development and contain the significant scenic features that compose the backbone of the park's attractive landscape. The lands in the development area are, by virtue of slope, soil, and vegetative conditions, suited for any use considered for the park.



GENERAL USE ANALYSIS

VERSAILLES STATE PARK



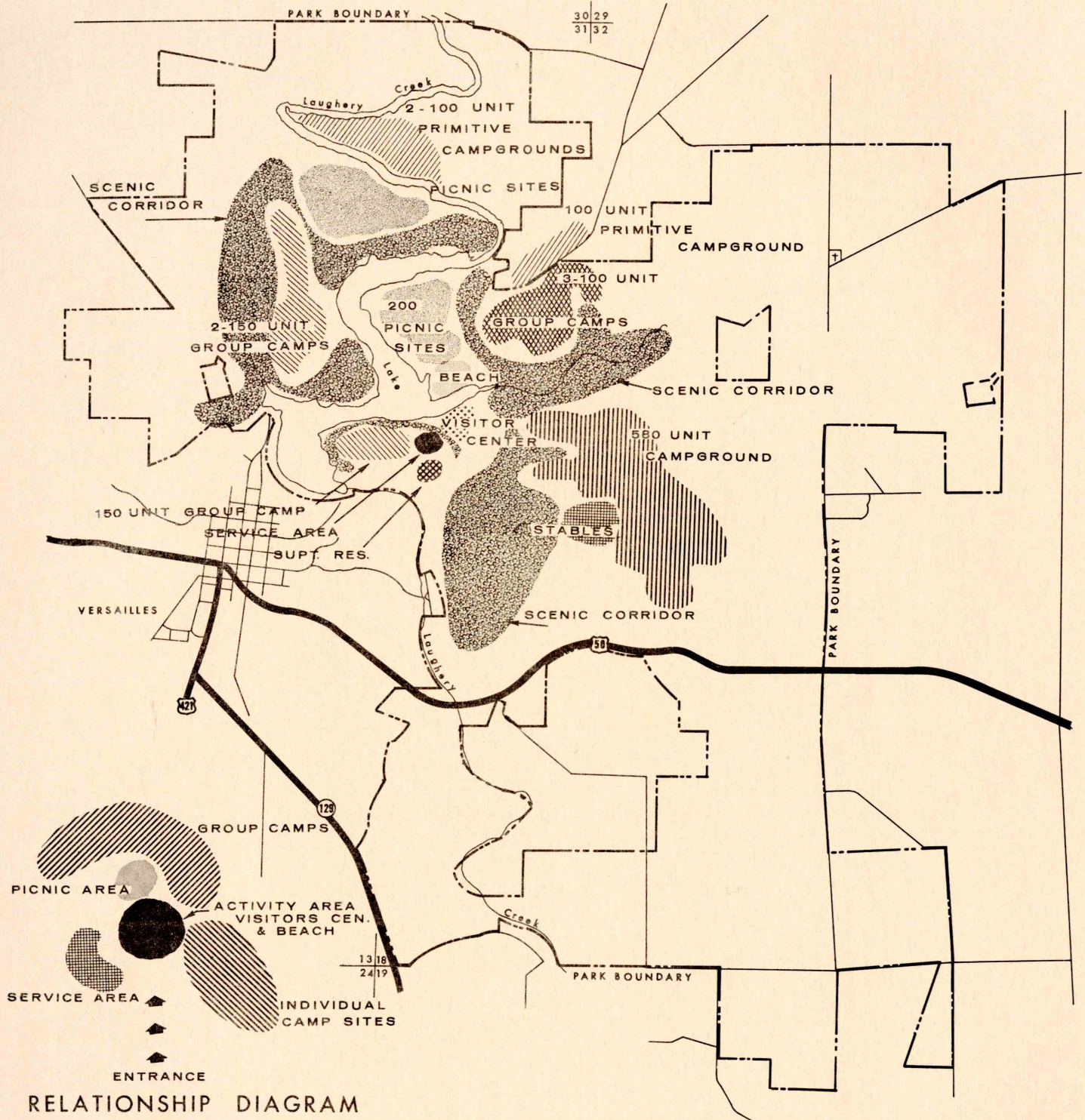
Concept Diagram

The crux of this map is the Use Relationship Diagram located in the lower left hand corner of the Concept Diagram. The Concept Diagram illustrates four areas of activity. These are the: intensive use area, picnic grounds, campgrounds, and service area.

The focal point is the visitors center-beach complex which is situated on the main road into the park. Directly affiliated with this complex is the picnic grounds. This use concentrates a great number of people who have only a few hours of leisure to spend in the park. It is for this reason that the area should be directly associated with the major park activities. Beyond and to either side of these intensive use areas are the campgrounds. They should be located away from the major traffic routes; the remoteness dependent upon their exact nature. Removed from the areas of major activities but in reasonably close proximity is the service area.

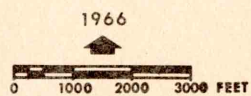
The Concept Diagram is an adaptation and assimilation of the Use Relationship Diagram with the physical features patterns displayed in both the Landscape Analysis and General Land Use Maps.

The visitors center and beach are in the geographic center of park activity. Access to these facilities is direct and easy, and a park user does not have to drive through other use areas to reach them. Just beyond the beach is the picnic ground which has a very good relationship to the park entrance as well as to the beach. An additional picnic area is needed to meet anticipated demand. An area north of the above mentioned picnic ground and across the river was selected for three reasons.



CONCEPT DIAGRAM

VERSAILLES STATE PARK



1. The soil, vegetation, and topography are ideally suited for the use.
2. There is a direct relationship to the water.
3. Expansion into that area is desirable in the light of growing demand and restricted site capabilities in the park.

A fourth reason for the development of the particular area is also noted. Improved access to the Hassmer Hill area is necessary. In conjunction with this point it is essential that additional facilities be developed on Hassmer Hill and along the access route to justify the expense of such a route; since a considerable outlay of money will be made to put a structure across the water. It is necessary to point out that in terms of good design and relationship of uses these facilities cannot be located elsewhere in the park without seriously affecting the character of the park's scenic values. In other words there is no point in cramming these facilities in one or two physically restricted areas.

Three types of camping activities are proposed in this park. They are the: individual camping units, primitive campground, and group camps. Variations to these basic types are proposed.

The most significant camping facility is the individual site. This campground will encompass the largest area. It also requires the least sensitive terrain. Consequently, the area east and south of the present facility has been selected. The area is isolated from the main stream of traffic but is in reasonably close proximity to the basic park facilities. It is noted that the area suited for this use is channelled in a southeasterly direction by the sensitive slopes of both the Falling Timber Creek drainage and Laughery Creek drainage.

The group camps are somewhat isolated because the activities of these groups are often established by the group itself. Sites for the primitive camp were selected to complement the intent of that facility.

One of the most significant areas identified on this map is the scenic corridor. Through proper management and control it is this area and this area alone that will perpetuate the attractive landscape in Versailles State Park.

This corridor acts as a buffer and screen between the various uses. It also provides, within close proximity to each of the use areas, interesting and attractive experiences with nature to those that venture into the undeveloped landscape.

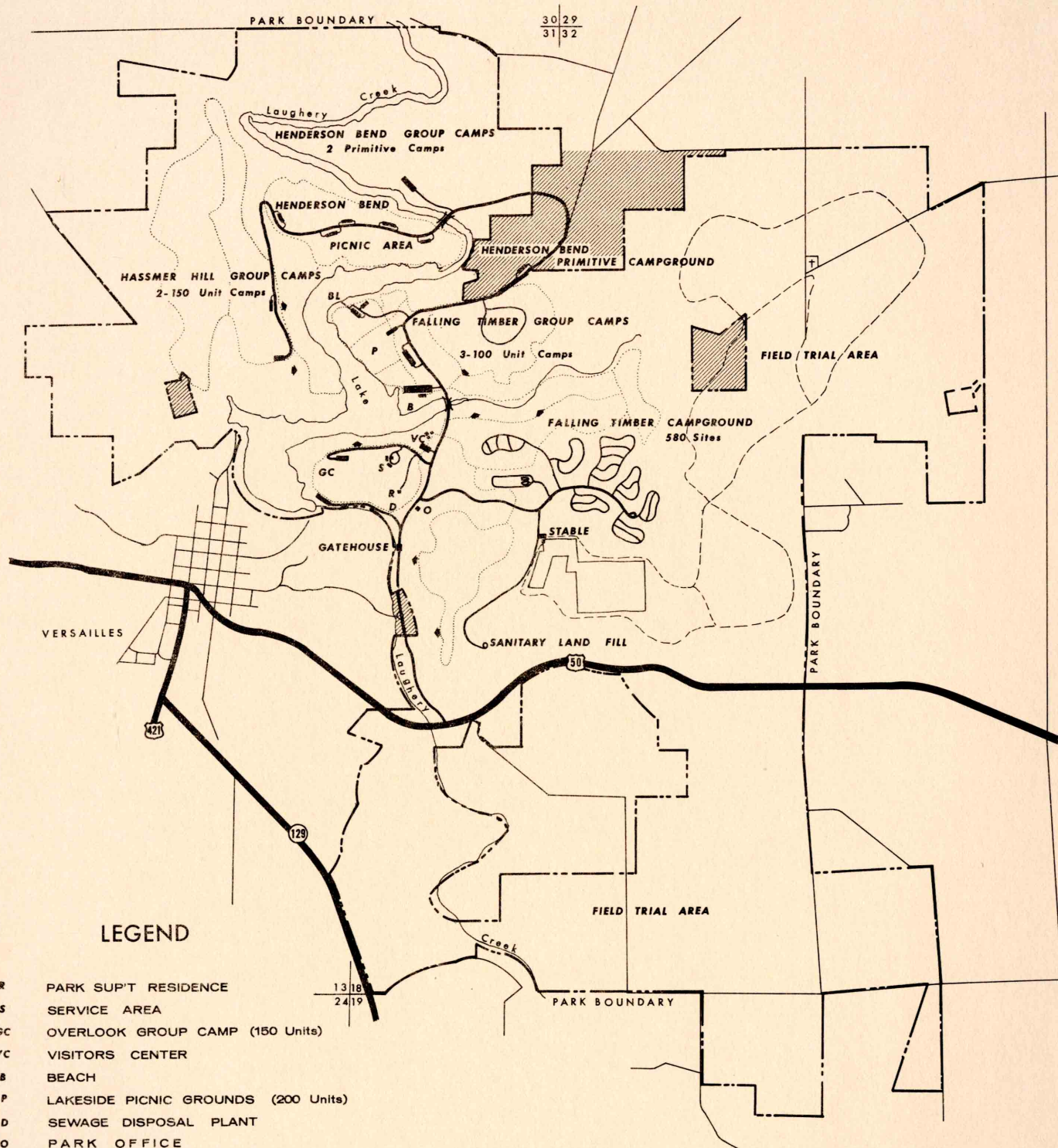
DESCRIPTION OF THE PLAN

Following is a description of the development plans. The study area is divided into five sheets which are keyed to the Map Index on the following page. All the plans except the plan on sheet number three are overlays on base maps with two foot contour intervals. Sheet three has ten foot contour intervals that were taken from a U. S. G. S. map.

Intensive Use Area

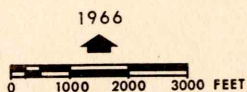
Visitors Center

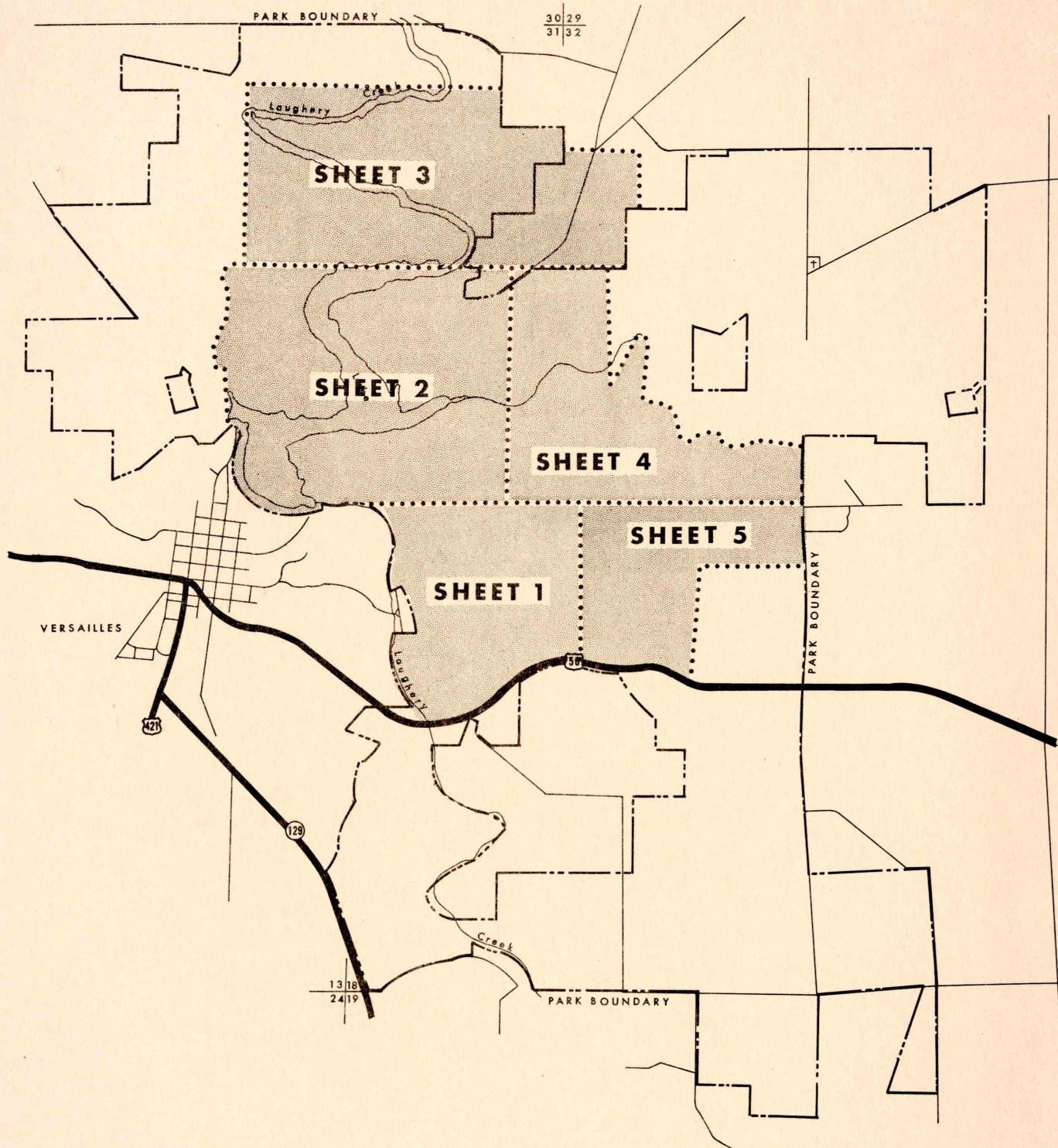
The visitors center is a facility that is meant to give an added dimension to the experiences of the park users through a program of lectures, exhibits, displays, movies, and various activities. It should be oriented toward enriching the person's knowledge of the local plant and animal community, of the park's geology, and physiography, and of the historical events associated with the park and surrounding area. It should provide entertainment as well as be informative.



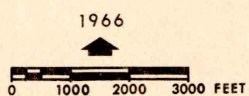
MASTER PLAN

VERSAILLES STATE PARK





MAP INDEX



SEE SHEET 2

SEE SHEET 4

SEE SHEET 5

GATEHOUSE &
INFORMATION OFFICE

STABLES

PASTURE

COVERED BRIDGE

PARK
BOUNDARY

SANITARY LAND FILL

LEGEND

- FOOT TRAIL
- HORSE TRAIL
- ▲ OVERLOOK
- EXISTING TREES
- SEWER LINE
- WATER LINE
- GRAVEL ROAD

U.S. 50

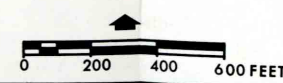
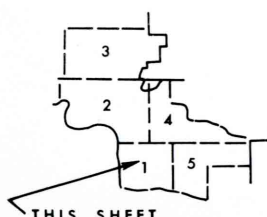
2 MILES
TO VERSAILLES

PARK ENTRANCE

DEVELOPMENT PLAN

VERSAILLES STATE PARK

SHEET 1



The visitors center is located on a low hill, thirty feet above water, on the southeast shore of Versailles Lake. The site was selected because of its outstanding relationship to the water, because it is on the main route into the park, and because it includes topography that is suited for the related facilities.

The complex of buildings and amphitheater will overlook Versailles Lake. In addition, it is sited as an attractive focal point from the entrance road.

Beach

The existing beach is in very good condition; as is the bathhouse. A 385 car parking lot with overflow parking for 100 cars is proposed. As a part of the development of the beach, the boating facilities on the west end of the present parking lot should be removed. It is felt that interest in both activities will increase to a point where the close association will cause serious conflict.

It is also proposed that a sprinkler system be installed in the lawn area behind the beach. This area is heavily used for sunning. The sprinkler would keep the grass attractive for this purpose and it would permit the grass to recoup faster from the heavy use.

Picnic Grounds

Two areas are designated as picnic grounds. One area is sited immediately north of the beach while the other is located north of Versailles Lake and is called the Henderson Bend Picnic Area.

SEE SHEET 3

HASSMER HILL

2-150 UNIT GROUP CAMPS
W/CABINS & CENTRAL FAC.

LEGEND

- TRAIL (FOOT)
- SEWER LINE
- WATER LINE
- TOILET W/SHELTER
- VAULT TOILET
- EXISTING TREES
- PROPOSED TREES
- OVERLOOK
- P PLAY EQUIPMENT
- GRAVEL ROAD

BOAT DOCK & LAUNCHING
AREA

20 CARS

40 CARS

100 CARS

200 UNIT
PICNIC AREA

PLAYFIELDS

80 CARS

BOAT DOCK

385 CARS

BEACH

LAKE

VISITORS CENTER -
AMPHITHEATER

SERVICE &
STORAGE AREA

PARK SUPT. RES.

SEWAGE TREATMENT PLANT

FISHING GROUNDS

150 UNIT GROUP CAMP

100 UNIT PRIMITIVE CAMP

3-100 UNIT CAMPS - CEN. FAC.

FALLING TIMBER
FAMILY CAMPGROUND
580 UNITS

100 UNIT CAMPGROUND

UNIT A

60 UNIT TRANSIENT CAMP

UNIT B

PARK OFFICE

VERSAILLES

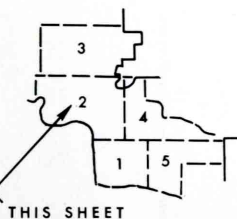
SEE SHEET 1

DEVELOPMENT PLAN

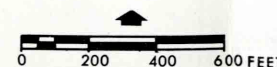
VERSAILLES STATE PARK

SHEET 2

SEE SHEET 4



THIS SHEET



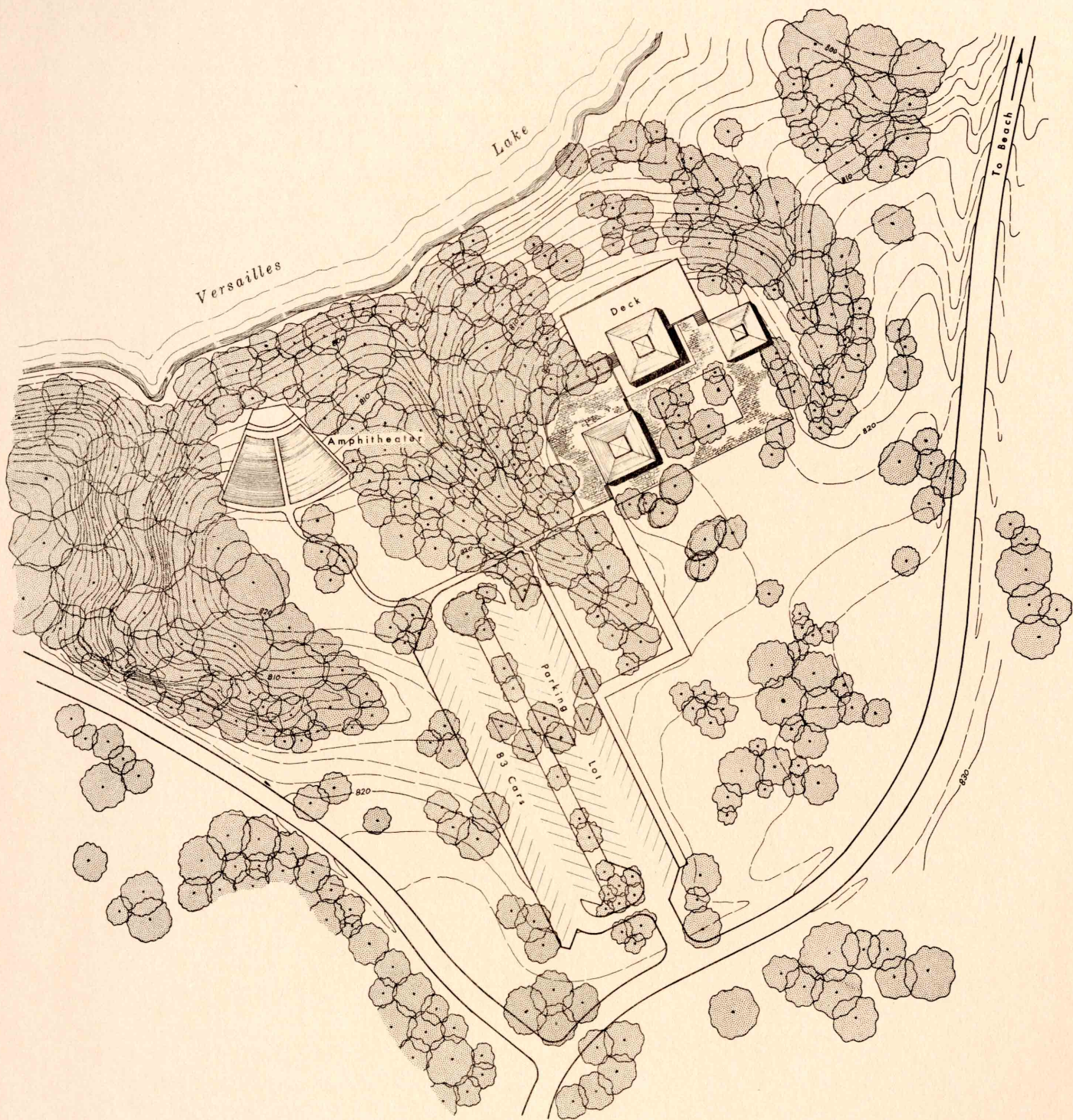
The area adjacent to the beach contains 200 units. (A unit consists of one table, one parking space, one-half grill, and one-half refuse can.) This picnic ground is subdivided into two 100 unit sections to permit a closer relationship to parking facilities.

The total area includes two large shelter-toilet combinations and three vault toilets. In addition, a playground is located in the vicinity of each shelter. Also included, are two ball fields and four small six feet by ten feet shelters overlooking the lake. It is also recommended that trail number seven be paved throughout the picnic area.

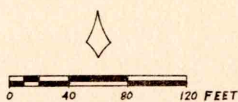
Henderson Bend Picnic Area includes a combination of three group picnic areas and two family picnic areas. Each of the family areas contain eighty units and includes a large shelter-toilet combination, a vault toilet and a small playground. When the group areas are not reserved for use, they can be utilized by individuals and in that condition have a capacity of 100 units.

Group Picnic Area A is designed to accommodate groups of 100 or less while Group Picnic Areas B and C will serve groups of 200 or less. Each area has a large shelter-toilet combination, a vault toilet, and a playground. In addition, two ball fields are located to serve the whole picnic area.

Because both picnic areas contain large open fields, it will be necessary to conduct a reforestation program. About fifty-six acres are involved. This effort should be initiated as soon as possible.



VISITORS CENTER



Boat Facilities

The existing boating facilities are meager but adequately serve the present needs. However, with the proposed increased capacity of the park, interest in boating will increase and should be encouraged. Since gas motor powered, high speed boats are prohibited sailing boats, canoes, row boats, rafts, and slow electric powered boats are all compatible on this lake.

It is proposed that the boat launching ramp, boat docks and related facilities be located north of the picnic area on the south shore of Versailles Lake. (See Development Plan sheet 2) This facility should also include a small concession building for sale of bait and for boat rentals. The concession can be run by either the park or by private individuals.

In addition, it is proposed that small boat docks be located to serve the Henderson Bend Picnic area and the Hassmer Hill area. These docks can be a part of the boating concession.

Moderate Use Areas

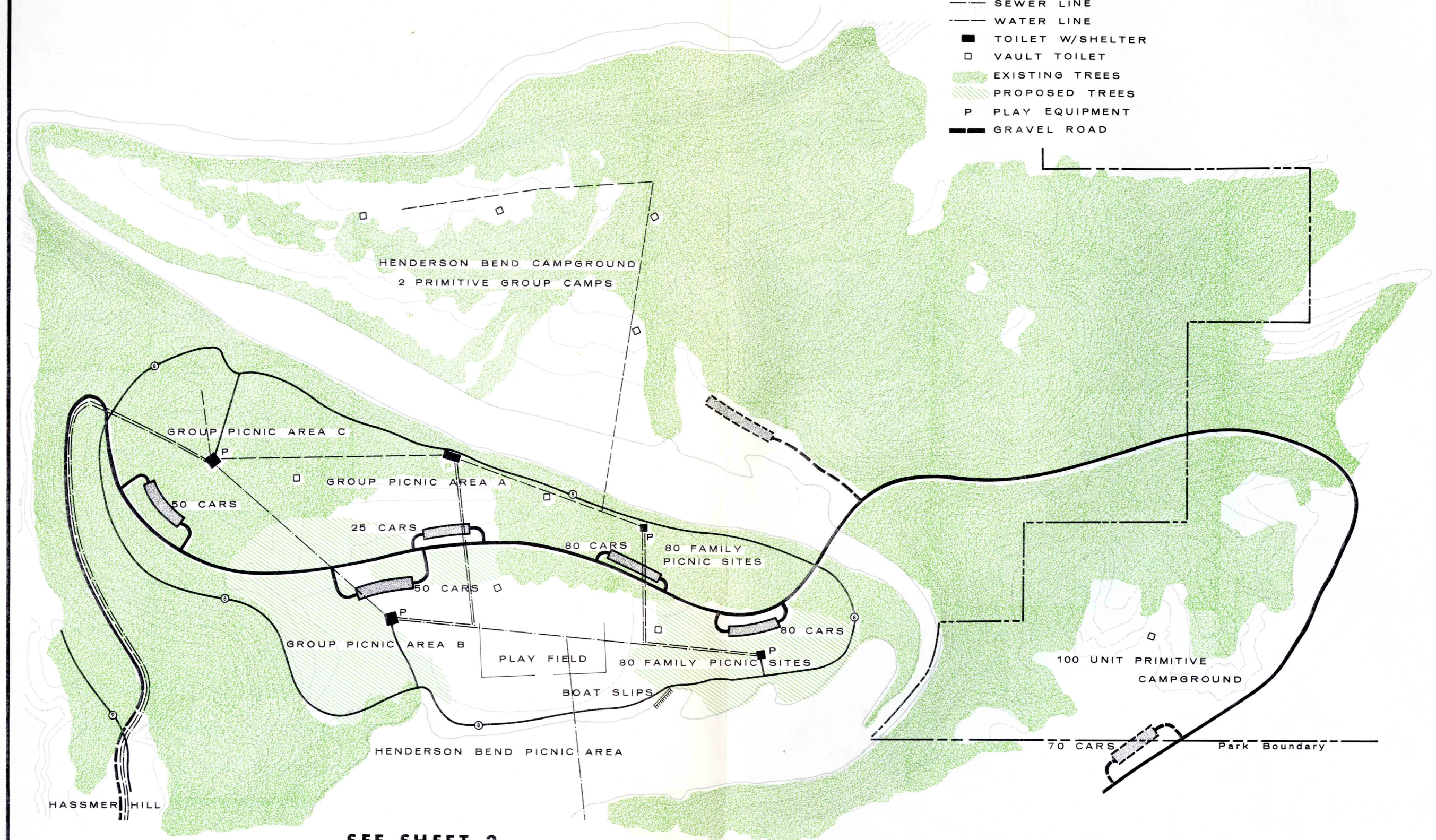
Camping

The proposed camping facilities are divided into six types. They include:

1. Individual camping sites
2. Transient camping
3. Primitive camping
4. Group camp - cabin and central facilities
5. Group camp - tents and central facilities
6. Group camp - primitive

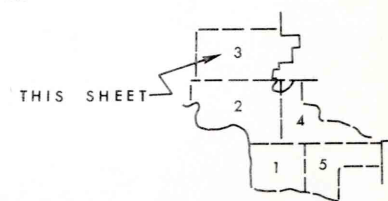
LEGEND

- FOOT TRAIL
- SEWER LINE
- WATER LINE
- TOILET W/SHELTER
- VAULT TOILET
- EXISTING TREES
- PROPOSED TREES
- P PLAY EQUIPMENT
- GRAVEL ROAD



Note:
10' contour is enlarged
from U.S.G.S. maps.

SEE SHEET 2



DEVELOPMENT PLAN VERSAILLES STATE PARK SHEET 3

The total capacity for these sites is 3,600 people. The present capacity is 1,000 and the capacity proposed in the Vollmer report is 3,200.

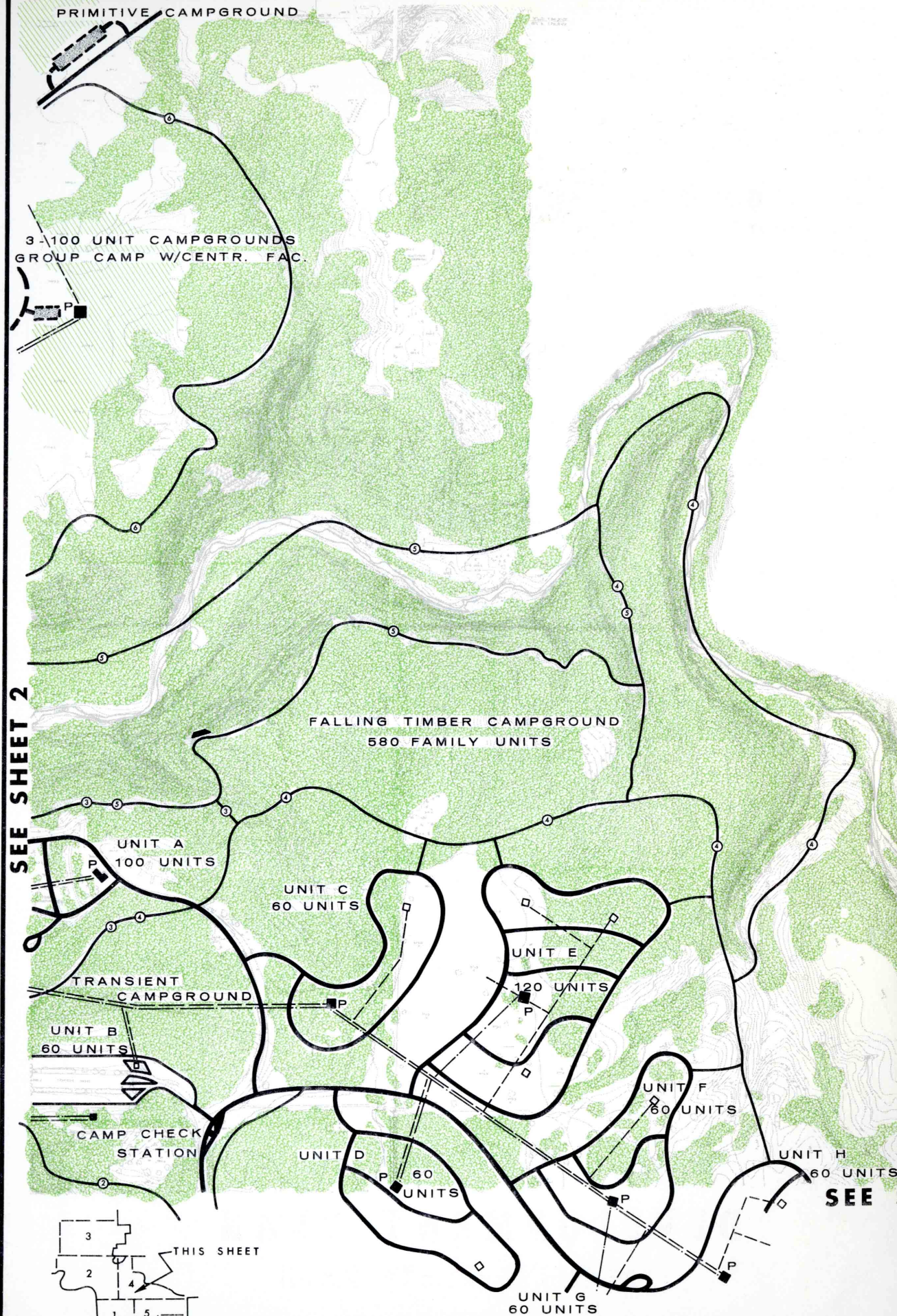
Falling Timber Campground contains 520 family camping sites and sixty transient camping spaces for a total of 580 sites. Each family site consists of a table, grill, refuse can, and parking spur, has a minimum dimension of sixty by seventy feet, and is located within 300 feet of toilet facilities and a potable water supply.

Three objectives guided the arrangement of this campground. They are:

1. Fit the units to the terrain.
2. Achieve maximum control for policing and maintenance.
3. Provide reasonable isolation within the whole campground.

These objectives have been accomplished by providing a collector road from which extend loop roads that serve 60 or more camping sites. The alignment of each of these loop roads is controlled by the terrain and is sited to emphasize that each loop is an individual campground.

In this arrangement management has an opportunity to close or open sections of the campground according to the demands of that particular day or week. He can also close one or more of the units for the season, on an alternating basis, to allow the area to recuperate, or he can close one or more units for the season except during periods of peak use.



- LEGEND**
- FOOT TRAIL
 - HORSE TRAIL
 - SEWER LINE
 - WATER LINE
 - ▲ OVERLOOK
 - TOILET W/SHELTER
 - VAULT TOILET
 - EXISTING TREES
 - PROPOSED TREES
 - P PLAY EQUIPMENT
 - GRAVEL ROAD

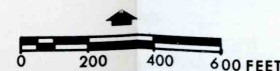
FIELD TRIAL AREA

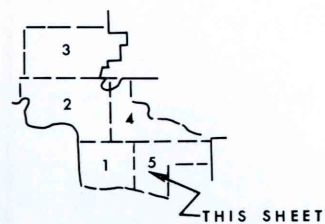
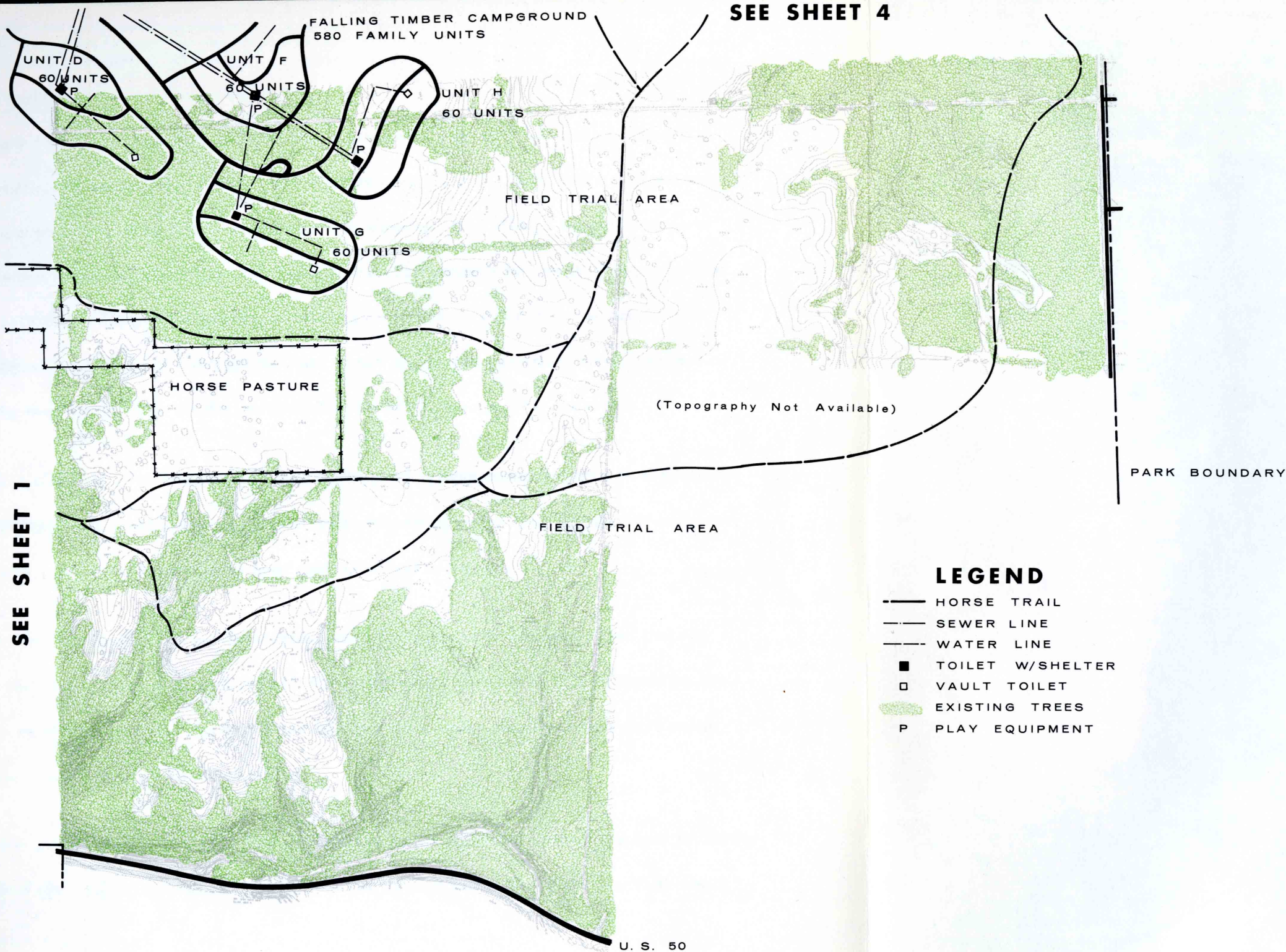
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FIELD TRIAL AREA

PARK BOUNDARY

DEVELOPMENT PLAN **VERSAILLES STATE PARK** **SHEET 4**





DEVELOPMENT PLAN **VERSAILLES STATE PARK** **SHEET 5**

Circulation

Based on the arrangement of facilities, approximately seventy per cent of the park's traffic will be projected directly into the intensive use area. This traffic will not pass through any activity area. Campers will be directed into Falling Timber Campground before they reach the major center of activity: this accounts for twenty-five per cent of the traffic. Thus, the objective of creating an efficient and unobtrusive circulation system is achieved as the proposed road system carries approximately ninety per cent of the traffic directly to its destination without passing through other use areas.

One of the major circulation problems in this park is developing an access to the Hassmer Hill area. Currently the area is reached by travelling across thirteen miles of non-park roads. It is also accessible by boat over 1200 feet of water.

Numerous access routes and techniques were analyzed and it was determined that the most logical route is as presented on the master plan. The problem of determining the route boiled down to long routes and 200 foot wide water crossings versus short routes and a maximum of a 500 foot bridge.

The proposed route provides more direct access to the facilities north of the boat launching area than any alternate route and eliminates through traffic in the Hassmer Hill area.

Road Conditions

Road	Type	Width (ft.)	Length (ft.)
Existing Roads			
Entrance (main road)	Asphalt	20	8,300
Group Camp #4	Asphalt	18	2,800
Falling Timber Campground	Asphalt	18	4,600
Hassmer Hill	Gravel	14-18	8,000
Stable	Asphalt	18	700
Fire Tower	Gravel	16	4,200
Fishing Grounds (below dam)	Gravel	16	2,200
Campground loop	Asphalt	12	5,200
Picnic Area	Asphalt	18	1,000
Proposed Roads			
Extension of main road	Asphalt	20	16,200
Superintendent's Residence	Asphalt	16	700
Falling Timber Campground			
Collector Road	Asphalt	18	1,200
Loop Road	Asphalt	16	24,900
Boat Launching Road	Asphalt	18	1,300
Falling Timber Group Camp	Gravel	16	2,800

Utilities

As previously stated, the existing potable water supply is obtained from the City of Versailles. As a result of the park development program, considerably more water will have to be obtained. No problem is anticipated concerning this matter.

At the rate of thirty gallons of water per person per day the maximum projected water needs for this park is 254,400 gallons per day. The requirement for the Hassmer Hill and Henderson Bend area is 62,400 gallons per day. It is suggested that, to assure a constant supply of water, water towers be constructed on Hassmer Hill and in the area of the existing park superintendent's residence.

It is estimated that a sewage treatment plant with a 130,000 gallon capacity will be necessary to handle the proposed facilities. This includes those facilities north of Versailles Lake.

With regard to Hassmer Hill and Henderson Bend, it is recommended that a gravity flow system carry the sewage from Hassmer Hill to the lower elevation in the Henderson Bend area. The sewage would then be pumped across the lake to a second lift station near the beach. From there it would be pumped to the plant which is to be located east of the existing treatment facility. No lift stations will be needed in Falling Timber Campground.

It is noted that all existing sewer and water lines should be replaced. They are old lines and inadequate to serve the increased demands.

Trails and Overlooks

Trails and overlooks are the only facilities permitted in the scenic corridors or conservation areas. The purpose of a trail system is to lead the hiker through a kaleidoscopic display of all the distinct natural features in the park. The hiker should have an opportunity to experience the silent majesty of a mature, dense forest, the intimacy and mystery of a dark, moss covered, craggy ravine, and the splendor of a panoramic view across a large body of water or open valley.

For the most part the trail system begins at the visitors center. The purpose for this is, the naturalists program should be actively involved with and interested in the natural features displayed along the trails. As an aid to this program, informative signs should

be placed at appropriate locations explaining the geology, the plant and animal life, and in general, the processes of nature, such as the occurrence of successional woodlands in abandoned fields.

Following is a descriptive table of the nine park trails. In determining the distances every trail, except 8 and 9, was measured to the visitors center. Because some of trails overlap the sum of the lengths below does not correspond to the actual length as noted on the following page.

VERSAILLES STATE PARK
Foot Trail System

Trail No.	Ease of Movement	Characteristics	Length (miles)
1	Easy	Water Oriented - Overlook provides a picturesque view of lake-River path	1.4
2	Moderate	Scenic forest-2 overlooks provide picturesque view of river valley	2.9
3	Rugged	Small ravines-Crest of Falling Timber Valley--Scenic overlook of lake	1.2
4	Rugged	Small ravines-Creek bed path	3.2
5	Moderate	Crest of Falling Timber Valley-Stream bed path-2 overlooks; scenic lake view-picturesque valley	2.0
6	Moderate	Crest of valley slope-screened panoramic views-Spectacular overlook of lake	2.0
7	Easy	Water oriented-Shoreline path: partially surfaced-Spectacular overlook of lake	1.9
8	Easy	Water oriented-Shoreline path	2.0
9	Rugged	Small ravines-Stream bed path 2 overlooks provide panoramic views of lake and valley	3.1

Nine trails totalling eighteen miles weave through the scenic corridors. Tied in with the trail system are eight overlooks. These structures are located at the crest of high bluffs and extend out from the crest to take advantage of the particular view. Each site was selected in field and was identified because of the splendid view it offered. The views from several overlooks can be improved considerably by selectively (and cautiously) clearing some of the trees on the steep slope between the overlook and the panoramic scene.

In addition to the foot trails, six miles of horse trails are proposed. All of these bridle paths are located in the eastern section of the park. In general, they follow the trails placed by the field trail people.

Field Trail Area

The field trail area is, to some degree detrimentally affected by the expansion of the campground and horse pasture. Approximately sixty acres of land formally within the bounds of the trail area is proposed for development.

According to representatives of the Indiana Field Trail Association the removal of this size an area would close that course to competition, particularly since it is taken from near the north-south center of the trail course.

The decision to extend the campground into this area was as previously stated, based on the physical characteristics of the land, the physical requirements of this particular use, and the number of units desired. In no case was the decision arbitrary.

It is fair to say, however, that after serious comparison of the various facilities, with respect to the number of people to be served and the area affected, the field trail use receives extremely low priority.

First of all, a review of the proposed plan shows that 2,000 acres of land will provide enjoyment to more than 8,000 picnickers, swimmers, and campers in the course of one day. This is more people than the 3,000 acres of field trail land will entertain in five years.

A second factor was also analyzed. While all the other activities have utilized the land more intensively, none have had a greater impact on the landscape than the field trail activity. Large areas have to be cleared of trees and shrubs. The soil conditions in the area are such that grass and other perennials do not thrive when disturbed. As a result, nowhere in the park are the problems of erosion so severe as in this section.

While the field trails do not seriously conflict with other recreational uses, particularly since they operate during seasons when these other uses are not heavily utilized, it is difficult to justify their maintenance in the Indiana State Park system. This is particularly so in the light of the official statement on the Criteria for Evaluating State Parks quoted at the beginning of this report. "...preserved as nearly as possible in their original or natural conditions and providing opportunity for appropriate types of recreation where such will not destroy or impair features and values to be preserved..."

General Facilities

The park office is located in the proposed area in order to be readily accessible to the park users, and to provide an element of control, especially during the slack seasons when the park staff is reduced in number. The site should be designed to accommodate a five car parking lot and a pull through parking area for the car-trailers.

The service area is to remain in its present location. A new service building complex is proposed as soon as the present one can be torn down.

With the recent construction of a new barn the stable complex is in reasonably good condition. Additional pasture area is proposed east of the stable. All horses must be kept out of the forest area west of this complex.

A new superintendent's residence is proposed. The present facility is inadequate and poorly located. The proposed location was selected because it provides an element of privacy but is reasonably close to the basic activities.

As previously stated, the park dump, or so called sanitary land fill, is in extremely poor condition. Every effort must be made to remedy this situation as soon as possible. It is recommended that a series of lineal pits be excavated and all the material now haphazardly deposited, pushed into these pits and covered. This land fill practice should then be continued throughout the year.

A gate should be constructed just beyond the horse stable area to prohibit access by non-park personnel into the land fill area. In conjunction with closing this road to the public, it is recommended that the fire tower be removed, unless an attendant is placed to watch over it.

Land Acquisition

The proposed road that provides access to the Hassmer Hill Area passes over land, in sections 31 and 32, that is not owned by the park. In order to develop this system of circulation it will be necessary to acquire between 150 and 200 acres in this area.

In addition to this acquisition proposal, it is recommended that the nine acre parcel west of Hassmer Hill, the forty acre tract southwest of Pleasant Hill Church, the seven acre lot along the east property line southeast of the church, and the seven acre tract near the park entrance be purchased when the opportunity arises.

DEVELOPMENT COSTS

The estimated cost of the entire development, as proposed, is \$3,443,671.00. The estimates are tabulated below. In addition, a table listing the development priorities is included.

As indicated in the development priority table, all the basic utilities are scheduled in the first of three development phases. This first phase includes those uses in highest demand. It is recommended that whenever a reforestation program is proposed in a particular use area, the program should be initiated in the first phase of that area's development.

The development schedule in the second phase is an expansion of earlier facilities, as well as a program for additional facilities. It is proposed that at the end of this period the development of all intensive use facilities should be completed.

The third phase is a wrap-up of the development program, primarily concerned with the group camps.

Development Costs

Facility	Quantity	Unit Cost	Cost
Utilities			
Sewage treatment plant	1	\$195,000.00	\$ 195,000.00
Lift station	2	7,000.00	14,000.00
Sewer line			
Force main	6,000 lineal feet	4.00	24,000.00
Gravity main	35,000 lineal feet	7.00	245,000.00
Water line	56,000 lineal feet	4.00	224,000.00
Water tower	2	10,000.00	20,000.00
Water fountain	90	80.00	7,200.00
Electric power line	30,000 lineal feet	1.50	45,000.00
Sub-Total			\$ 774,200.00
Visitors Center			
Building Complex			\$ 120,000.00
Parking with barriers (asphalt)	83 stalls	140.00	11,620.00
Landscaping			16,000.00
Amphitheater			40,000.00
Sub-Total			\$ 187,620.00
Picnic Areas			
Table	460	60.00	\$ 27,600.00
Grill	230	55.00	12,650.00
Refuse can with anchor	230	25.00	5,750.00
Bar B-Q pit	3	800.00	2,400.00
Large shelter with toilet	7	30,000.00	210,000.00
Vault toilet	8	2,000.00	16,000.00
Small shelter - 6' x 12'	4	500.00	2,000.00
Play equipment	60	220.00	13,200.00
Parking with barriers (asphalt)	460	140.00	64,400.00
Softball field	4	600.00	2,400.00
Clearing and grubbing	40 acres	200.00	8,000.00
Reforestation	60	350.00	21,000.00
Road (20' asphalt) from beach to Hassmer Hill	16,300 lineal feet	5.50	89,650.00
Sub-Total			\$ 475,050.00
Beach			
Parking with barriers (asphalt)	385 stalls	140.00	\$ 53,900.00
Demolition of boat ramp		600.00	600.00
Sprinkler system		2,000.00	2,000.00
Sub-Total			\$ 56,500.00

Facility	Quantity	Unit Cost	Cost
Boat Complex			
Parking with barriers (asphalt)	20 stalls	\$ 140.00	\$ 2,800.00
Parking, car and trailer (asphalt)	40	180.00	7,200.00
Boat ramp 16'	1	8,000.00	8,000.00
Boat dock - 70 boats (includes all docks)		10,000.00	10,000.00
Building	1	6,000.00	6,000.00
Sub-Total			\$ 34,000.00

Campgrounds			
Individual sites			
Table	420	60.00	\$ 25,200.00
Grill	420	55.00	23,100.00
Refuse can with anchor	420	25.00	10,500.00
Parking with wood barrier (gravel)	420 spurs	120.00	50,400.00
Clearing and leveling	420	120.00	50,400.00
Large shelter with toilet	6	30,000.00	180,000.00
Shelter parking (gravel)	50	140.00	7,000.00
Vault toilet	8	2,000.00	16,000.00
Play equipment	36	220.00	7,920.00
16' road (asphalt)	21,100 lineal feet	4.50	94,950.00
18' road (asphalt)	1,200 lineal feet	5.00	6,000.00
Reforestation	50 acres	300.00	15,000.00
Check station	1	6,000.00	6,000.00
Sub-Total			\$ 492,470.00

Existing campground			
Table	100	60.00	\$ 6,000.00
Grill	100	55.00	5,500.00
Refuse can with anchor	100	25.00	2,500.00
Parking with wood barriers (gravel)	100 spurs	120.00	12,000.00
Play equipment	10	220.00	2,200.00
Repair of shelter and toilets			5,500.00
Break up existing road	4,600 lineal feet	1.00	4,600.00
16' road (asphalt)	3,800 lineal feet	4.50	17,100.00
Land reclamation	16	500.00	8,000.00
Sub-Total			\$ 63,400.00

Facility	Quantity	Unit Cost	Cost
Transient Camp			
Parking area (asphalt)	12,000 square yards	\$ 4.00	\$ 48,000.00
Table	20	60.00	1,200.00
Grill	20	55.00	1,100.00
Refuse can with anchor	30	25.00	750.00
Fire circle	1	300.00	300.00
Vault toilet	2	2,000.00	4,000.00
Play equipment	6	220.00	1,320.00
Repair shelter		2,500.00	2,500.00
Sub-Total			\$ 59,170.00
Primitive Camp			
Table	100	60.00	\$ 6,000.00
Grill	100	55.00	5,500.00
Refuse can with anchor	50	25.00	1,250.00
Vault toilet	3	2,000.00	6,000.00
Parking (gravel)	75	90.00	6,750.00
Sub-Total			\$ 25,500.00
Falling Timber Group Camp			
Central building	3	40,000.00	\$ 120,000.00
Parking (gravel)	30 stalls	90.00	2,700.00
16' road (gravel)	2,800 lineal feet	3.00	8,400.00
Softball field	3	600.00	1,800.00
Fire circle	3	500.00	1,500.00
Reforestation	35 acres	300.00	10,500.00
Sub-Total			\$ 135,450.00
Henderson Bend Group Camp			
Vault toilet	4	2,000.00	\$ 8,000.00
12' road (gravel)	600 lineal feet	2.00	1,200.00
Parking (gravel)	30 stalls	60.00	1,800.00
Refuse can with anchor	20	25.00	500.00
Fire circle	2	300.00	600.00
Sub-Total			\$ 12,100.00
Hassmer Hill Group Camp (reconstruction of existing camp)			
Cabin	36	8,000.00	\$ 288,000.00
Lodge	4	30,000.00	120,000.00
Central facility	2	55,000.00	110,000.00
Fire circle	4	500.00	2,000.00
Amphitheater	2	5,000.00	10,000.00
Softball field	2	600.00	1,200.00
Parking (gravel)	20 stalls	90.00	1,800.00
Sub-Total			\$ 533,000.00

Facility	Quantity	Unit Cost	Cost
Group Camp Number 4			
Renovate abandoned park office		\$ 500.00	\$ 500.00
General repair		15,000.00	15,000.00
Sub-Total			\$ 15,500.00
General			
Superintendent's residence			
House		25,000.00	\$ 25,000.00
16' road (asphalt)	700 lineal feet	4.50	3,150.00
Landscaping		2,500.00	2,500.00
Sub-Total			\$ 30,650.00
Park Office			
Office	1	12,000.00	\$ 12,000.00
Parking	10 stalls	140.00	1,400.00
Landscaping		1,200.00	1,200.00
Sub-Total			\$ 14,600.00
Trails and Overlooks			
Foot trails			
Repair existing	25,600 lineal feet	0.15	\$ 3,840.00
Proposed trail (no surface)	59,300 lineal feet	0.30	17,790.00
Proposed trail (5' asphalt)	9,840 lineal feet	2.50	24,600.00
Overlook	8	4,000.00	32,000.00
Horse Trail (includes repair of existing)	6 miles	600.00	3,600.00
Sub-Total			\$ 81,300.00
Service Area			
			\$ 42,000.00
Stable			\$ 6,000.00
Realign road	600 lineal feet	5.50	\$ 3,300.00
Fishing Grounds (below dam)			
Parking (gravel)	30 stalls	60.00	\$ 1,800.00
Vault toilet	1	2,000.00	2,000.00
Sub-Total			\$ 3,800.00
Bridge			
	4,800 square feet	15.00	\$ 72,000.00
Gatehouse			\$ 12,000.00
Demolition of fire tower			\$ 1,000.00
Total			\$3,130,610.00
10% Contingencies			313,061.00
Grand Total			\$3,443,671.00

Development Priority

Phase I

Facility	Cost
Complete all sewer, water, and electrical work	\$ 774,200.00
Visitors center and parking lot	139,620.00
Gatehouse	12,000.00
50% of picnic area adjacent to beach	75,125.00
Family Campground (units C and D - 120 sites)	161,440.00
Partial rehabilitation of existing campground (unit A)	18,600.00
Beach parking	53,900.00
Park office	14,600.00
Road realignment	3,300.00
Superintendent's Residence	30,650.00
50% of transient camp (unit B - 30 sites)	29,585.00
40% of trail and overlook system	33,615.00
Sub-Total	<u>\$1,346,635.00</u>
10% contingencies	134,663.00
Total	<u>\$1,481,298.00</u>

Phase II

Amphitheater and landscape visitors center	\$ 48,000.00
Complete development of picnic area (north of beach)	75,125.00
Complete beach development	2,600.00
Service area	42,000.00
Boat complex	34,000.00
Family Campground (Unit E)	118,440.00
Complete existing campground (Unit A)	44,800.00
Complete transient camp (Unit B)	29,585.00
Road to Hassmer Hill from near boat dock	78,650.00
Bridge across Laughery Creek	72,000.00
Primitive camp (individual sites)	25,500.00
One group facility in the Falling Timber Group Camp	45,150.00
Henderson Bend Group Camp (Primitive)	12,100.00
Complete trail and overlook system	47,685.00
Sub-Total	<u>\$ 675,635.00</u>
10% contingencies	67,564.00
Total	<u>\$ 743,199.00</u>

Phase III

Facility	Cost
Develop picnic area north of Versailles Lake	\$ 246,150.00
Family campground (units F, G, and H - 180 sites)	212,590.00
Complete Falling Timber Group Camps	90,300.00
Renovate and repair Group Camp #4	15,500.00
Stable	6,000.00
Fishing grounds below dam	3,800.00
Demolition of fire tower	1,000.00
Develop the Hassmer Hill Campground	533,000.00
Sub-Total	\$1,108,340.00
10% contingencies	110,834.00
Total	\$1,219,174.00
Grand Total	\$3,443,671.00

CONCLUSIONS AND RECOMMENDATIONS

Versailles Lake is undoubtedly the most attractive feature in the park and, as such, should be readily accessible to park users. The master plan illustrates a concentration of facilities around this feature. As previously noted, they were arranged according to the dictates of the natural features in order to protect these features. However, with this concentration of people so closely oriented to the lake, some natural areas of a more sensitive composition will be subject to heavy use. It is, therefore, recommended in conjunction with an extensive development program that a comprehensive management program be initiated to avoid a creeping deterioration into the natural areas. This program involves reforestation, continuous maintenance and repair, and improved policing practices.

Expansion, as may be dictated in the distant future, will occur in a pattern outward from the present core of activity. More than 3,000 acres are available for this expansion.

(It is not recommended that every inch of the buildable park land be developed, since

desired experiences in the park include walking through or near undisturbed areas.) Approximately 1,200 acres is located south of U. S. Highway 50. While the remaining park landscape is not of the same caliber, it is very well suited to the various park activities. The recommendation is that this land be held in reserve for future use, and that a long range management program to promote natural succession of woodlands, to maintain a balance of meadows and forests, and to protect against erosion or other undesirable disturbances be considered.

This brings up the relationship between the park and the field trial activity. The character of this activity and its impact on the park has been discussed in a previous section. It was determined that this use conflicts with the intent of a state park program, and as presently operated, conflicts with the objective of good park land management. It is, therefore, recommended that the field trial activity be discontinued and that the area now devoted to that use be put in the reserve category discussed above.

